

# Summary of major non-clinical research on testicular contraception from 2017 to 2023:

**2024 Richaud**

## **Testicular Lifting Contraception: The Experience of Its Use by Penis-Having Individuals**

Testicular lifting contraception is a current topic and represents a public health challenge. Although few people use this method to date, there is a growing demand and spread of information. Penis-having individuals seem primarily interested in relieving their partners of this mental burden but are also interested in taking control of their own fertility by taking responsibility. This method is generally highly appreciated by its users due to its natural, considered non-invasive character, and ease of use. Moreover, users appreciate being able to objectively verify its effectiveness through sperm analysis.

This study reveals a need for support from health professionals, both in terms of information and prescription, while maintaining a certain autonomy and independence. Furthermore, penis-having individuals seem to appreciate having a better understanding of their body and taking a more active role in managing their health.

Larger-scale and longer-term studies are needed to evaluate the effectiveness and safety of this contraception method.

**2023 Guidarelli**

## **Cross-sectional study on contraceptive testicular lifting devices: safety, acceptability, effectiveness.**

### **Objectives:**

Principal: assess the medical safety of at least six months' use of testicular lifting devices (TLD).

Secondary: Definition of socio-demographic and medical profiles; the different TLD in use; the real-life acceptability of TLD; the effectiveness of the TLD in current use; proposal of new avenues and protocols for research and recommendations on usage based on results.

### **Tools and methodology**

A descriptive cross-sectional international study, carried out from 14 December 2021 to 4 March 2022, through the distribution of an anonymous online questionnaire, to participants who had been practising contraception by testicular lifting for at least 6 months.

## **Results:**

There were 1050 respondents, of which 970 were analysed. Several different TLDs were used during an average of 14.1 months [ $\pm$  8.7], the Andro-switch device being the most-used (96.0%). The majority of participants did not use the TLD according to recommendations: 44.8% between 15 and 17 hours per day, 68.6% had an initial sperm analysis and 74.0% an initial medical consultation. Undesirable side-effects were frequent, cutaneous and benign. Unexpected unwanted effects on urinary function were reported. The ASEX scores for sexual dysfunction before TLD and at the time of the study were unchanged.

Satisfaction concerning quality of sexual life according to the MSHQ questionnaire significantly increased for participants and their partners after TLD. Satisfaction was very high (86.5%), and reported feeling of constraint low (inferior to 10%, except in the case of sporting activities (20%)). The main constraints identified were the necessity to regularly reposition the testicles, and the accessibility of medical accompaniment and semen analyses. The contraceptive threshold was achieved by 92.6% of those who had had a semen analysis to verify effectiveness. Six unwanted pregnancies occurred during the period of inhibition (before achieving the contraceptive threshold, or the first three months of use). The Pearl index, assessed after one year of contraceptive phase (contraceptive threshold achieved), and the end of supplemental contraception, during 3727 cycles of exposure, was 0.0%

## **Conclusion :**

TLD devices seem to be acceptable from a healthcare point of view in terms of unwanted side-effects and effects on sexuality. They are not, however, used according to recommendations. Additional studies are necessary, as well as training for healthcare professionals in the accompaniment of this form of contraception, and improved access to semen analysis.

## **2023 Beraud**

### **Thermal Male Contraception: Literature Review and Study of the Nantes Population**

**Introduction:** To date, contraception is predominantly a topic concerning women. In response to significant demand, French user associations are developing male contraceptive methods. Two methods that inhibit spermatogenesis, developed in the 1980s, are currently making a comeback in the contraceptive arsenal: hormonal male contraception and thermal male contraception (TMC). The primary objective is to describe the Nantes population using TMC, their practices, and their knowledge of the AFU recommendations. The secondary objective is to evaluate the effectiveness of spermatogenesis inhibition by TMC in our

patients.

**Materials and Methods:** A descriptive retrospective study was conducted from 01/01/2018 to 25/06/2022 at the Nantes University Hospital. Fifty-nine patients using TMC responded to an online questionnaire. The contraceptive efficacy of TMC at the Nantes University Hospital was also evaluated in a retrospective study, including 32 patients with at least one spermogram before TMC implementation and a control spermogram to assess efficacy.

**Results:** The questionnaire describes the population as young (25–30 years old), in non-married relationships, and childless. The main contraceptive method used is the Andro-switch ring at 90%, and the start of TMC usage is very recent (2021 or 2022). The recommendations are generally followed, except for the frequency of follow-up spermograms once the threshold is reached. The overall opinion is very positive for both the user and their environment. After analyzing the spermograms, the use of the Andro-switch type ring shows a significant alteration in sperm parameters regarding count ( $p < 0.001$ ) and progressive mobility ( $p < 0.001$ ), with no alteration in volume found. This ring is effective, with 85% of patients reaching the contraceptive threshold in less than 6 months.

**Conclusion:** The novelty of this study lies in the fact that it is one of the few describing contraceptive habits and adherence to recommendations among patients. Furthermore, to date, no efficacy study of the Andro-switch type ring has been conducted in the literature. The equitable sharing of contraceptive mental load, contraceptive deadlocks in couples, and the global burden of unwanted pregnancies show the necessity to invest in and develop all contraceptive means. TMC could be an interesting alternative, but larger-scale studies are needed to prove its effectiveness, safety, and thus enable its authorization for market release by the ANSM.

## 2023 Charron

### Rethinking Contraceptive Work Through the Lens of So-Called Male Contraception

**Conclusion:** A new health practice reflecting shifting social relations

This thesis has highlighted the sociological and anthropological mechanisms shaping the modalities of use of a contraception in full development in France. Moreover, the case study conducted among men using contraception and the Marseille collective Treizticules constitutes an ethnographic work conducive to gender studies.

The approach of the object through the concepts of patriarchy and gender, considering the plurality of actors and their interactions, has shed light on the fundamental work carried out by women in the development of male contraception (MC). This perspective accounts for the gender dynamics accompanying its development. Here are its main contributions:

Firstly, from a socio-historical perspective and with the aid of previous works, it was shown how contraception is an anthropological object that reflects social gender relations (Thomé, 2019, p.22). Indeed, the availability and recognition of practices allowing birth control evolve as the definitions of masculine and feminine are continuously (re)defined. In this view, it appeared that contraception cannot be reduced to the gender of the person on whom the method acts and that the analysis of contraceptive work must take into account a multiplicity of actors (Roux, 2020; Spencer, 2012). This approach shows that in France, methods acting on men's bodies and prior to sexual intercourse are announced as an unprecedented practice in contraception, which goes against the current contraceptive norm. This observation leads to questioning the conditions of its practice and development. In this perspective, the second chapter showed that the process leading to male contraception is part of a context of questioning the contraceptive norm. Taking into account this challenge has highlighted the decisive role of certain women and feminists and their interaction with men who have started this process. This process, which is distinguished into two phases according to Cyril Desjeux - a process of sensitization and a process of appropriation - allows my respondents to adopt an increasingly active attitude towards contraception to the point of gaining a certain autonomy made possible by the delegation from their girlfriends. In the third chapter, it emerged that using so-called male contraception allows my respondents to reposition themselves in the social space in the sense that MC gives these men the opportunity to appropriate skills considered feminine. This practice, which participates in the redefinition of masculinities, automatically comes with a change in social gender relations that is concretely manifested by the collaboration of social groups of men and women to resort to MC. This collective effort contributes to unburdening women from an unequally distributed workload but inevitably fits into social relations where men remain privileged.

From this viewpoint, focusing on the use of thermal contraception through my respondents' experience has shown how the practices of these men are realized in a context opposite to that encountered by women. Unlike so-called female contraception, the medical community has not taken hold of thermal contraception and is therefore not able to support its potential users. This way, its recourse is much less obvious and requires the intervention of other actors. At the same time, what appears at first glance as a barrier allows men to escape medical control and adopt an active stance in their contraceptive approach, which is not yet the case for the vast majority of women. This differential treatment is supported by groups that share the idea that men would be incapable of assuming contraception or that this possibility would represent a danger to women's freedom over their bodies. The ethnographic data I collected attest to the inconsistency of these statements since my respondents were able to use contraception, which consequently extends the contraceptive options available to women, who remain the primary decision-makers.

Regarding women's interest in using MC, the fifth chapter showed that it was they who

originated its development. In this regard, it was observed that men reappropriated this goal after feminists had highlighted the interest of their involvement. This work also showed how contraception is embedded in social gender relations, resulting in an unequal distribution of reproductive health care. Finally, this part raised the hypothesis that the use of so-called male contraception contributes to redefining the contours of fatherhood. Ultimately, this thesis has shown that the idea of so-called male contraception emerges from feminist struggles and that its development results from a collaboration between women's activist groups and men's activist groups. While this work is shared, recognizing the part of women has been deemed necessary, which testifies to the persistence of a system in which they are made invisible. Nonetheless, to respond to Françoise Héritier, who stated that free access to contraception is "the lever allowing women to lift the weight of male domination," I propose to see the development of these health practices as lifting a small part of the weight of this domination. Because, if choosing whether to use contraception or not is a male privilege, having the opportunity to no longer suffer the side effects of contraception and to share its burden is also a privilege that very few women enjoy.

## **2023 Giacometti**

### **Acceptability of Innovative Male Contraceptive Methods Among Adult Heterosexual Men in France in 2021**

**Introduction.** — New male contraceptive methods are under study: male hormonal contraception, reversible occlusion of the vas deferens, and thermal contraception. This study aimed to assess the acceptability of these methods among men.

**Materials and Methods.** — We conducted an opinion survey from July to November 2021, through an anonymous questionnaire distributed on the internet in France. The subjects were adult heterosexual men.

**Results.** — Out of 1545 connections to the questionnaire, we analyzed 905 complete questionnaires. Seventy-three percent of men declared themselves in favor of adopting an innovative male contraceptive method as their primary form of contraception: 64% in favor of reversible occlusion of the vas deferens, 22% in favor of male hormonal contraception, and 13% in favor of thermal contraception.

## **2023 Urena-Dores**

### **Vasectomy: What if We Talked About It to Women? A Qualitative Survey Asking Women**

## **Aged 35 to 55**

This study provides new data on women's perceptions regarding vasectomy. Women are the main interlocutors in terms of contraception but desire greater male involvement in contraceptive choice. According to them, the main barrier to opting for vasectomy is the lack of information and communication on the subject. The gaps in knowledge about this contraceptive method and the crucial role women can play in involving men in a shared decision-making process within couples shed light and offer directions for better informing patients, especially in general medical consultations. This work highlights the fact that women wish to be informed of all available contraceptive means and consider vasectomy a good compromise when a stable couple does not desire more children.

## **2023 Wach**

### **Male Contraception – trapped in a “fetal state”?**

#### **Economic, Social and Structural Hurdles for Research and Development of Novel Male Contraceptive Technologies**

In over 50 years of male contraceptive research, no effective and reversible male contraceptive method has reached the market. This is surprising in light of the high number of unintended pregnancies globally and evidence that confirms demand for male contraceptives. It raises the question why development of male contraceptives seems to stall. Specifically, this thesis addresses economic, social, and structural hurdles for research and development of novel male contraceptives. Using qualitative content analysis and deductive-inductive coding, the thesis builds an analytical framework on hurdles in male contraception. For this, nine semi-structured expert interviews with researchers, developers and enabling actors in advocacy, funding and networking were conducted between July and October 2022. Based on this empirical evidence, the thesis explores nine hurdles to male contraceptive development: gaps in private and public sector funding (economic hurdles), restrictive reproductive gender norms and contraceptive standards (social hurdles), as well as regulatory barriers, infrastructure gaps, knowledge gaps and scientific challenges (structural hurdles). The thesis concludes that whilst further research is warranted, the evidence suggests that male contraception may be trapped into a state of immaturity of technology, market and social context that is mutually reinforcing.

## **2023 Terzibachian**

### **Men's Roles in Abortion Processes: Challenges and Male Trajectories in Fertility Control**

In France, since 1976, nearly 200,000 voluntary terminations of pregnancy (IVG) are counted each year. On average, one in three women is likely to experience an abortion during her

lifetime. Therefore, IVG is an integral part of women's reproductive experience but also that of men who, through their sexual and contraceptive behaviors, contribute to the occurrence of an unplanned pregnancy. However, little data reflect male behaviors in such situations. This thesis aims to analyze men's roles in the abortion process from both a synchronic and diachronic approach.

The analysis first focuses on the roles men assume—whether they are desired, imposed, or prevented—in abortion care. Secondly, the diachronic approach examines the role that abortion (or abortions) plays in men's life trajectories, considering their different life stages, ages, or the relationships they have with the women involved. In this regard, we explore how IVG can be a lever to modify men's sexual and reproductive health behaviors, especially regarding their contraceptive practices.

This thesis is based on 13 semi-structured interviews conducted with men who have experienced IVG at least once in their lives. Additionally, particular attention is paid to how men are perceived and classified by the medical institution to order the procreative norm. A series of observations were thus made in the orthogeny service of a public medical facility. This work allows for an exploration of male interpretations of the procreative norm and the articulation between masculinities and reproductive sexual health. It helps understand how abortion is intertwined with a series of gendered learnings, with which men negotiate to justify resorting to IVG and to meet their partner's "needs." Furthermore, we observe how an unplanned pregnancy illustrates male behaviors in sexuality and contraception. IVG thus makes visible certain foundations of heterosexual sexuality, naturalizing penetrative practices and contraceptive work on the part of women. Finally, although some men take the abortive experience as an opportunity to modify their contraceptive or even sexual practices, this does not seem to be systematic. It is important to precisely question to what extent IVG can influence these practices. While abortion can be a lever to modify their contraceptive practices, it seems to do so only under certain conditions. IVG itself does not always have a direct influence. It is rather its repetition in biographical trajectories or the modalities in which it occurs that allows men to start reflecting on contraception. Ultimately, the goal is to address how men incorporate this experience into their life trajectories and how its visibility and impacts are integrated with the definitions they give to their masculinity.

## **2023 Garrett**

### **Male contraception: narrative review of ongoing research**

**Background:** Since the release of the combined oral contraceptive pill in 1960, women have shouldered the burden of contraception and family planning. Over 60 years later, this is still the case as the only practical, effective contraceptive options available to men are condoms and vasectomy. However, there are now a variety of promising hormonal and non-hormonal

male contraceptive options being studied. The purpose of this narrative review is to provide clinicians and laypeople with focused, up-to-date descriptions of novel strategies and targets for male contraception. We include a cautiously optimistic discussion of benefits and potential drawbacks, highlighting several methods in pre-clinical and clinical stages of development.

**Results :** As of June 2023, two hormonal male contraceptive methods are undergoing phase II clinical trials for safety and efficacy. A large-scale, international phase IIb trial investigating efficacy of transdermal segesterone acetate (Nestorone) plus testosterone gel has enrolled over 460 couples with completion estimated for late 2024. A second hormonal method, dimethandrolone undecanoate, is in two clinical trials focusing on safety, pharmacodynamics, suppression of spermatogenesis and hormones; the first of these two is estimated for completion in December 2024. There are also several non-hormonal methods with strong potential in preclinical stages of development.

**Conclusions:** There exist several hurdles to novel male contraception. Therapeutic development takes decades of time, meticulous work, and financial investment, but with so many strong candidates it is our hope that there will soon be several safe, effective, and reversible contraceptive options available to male patients.

## **2023 Warembourg**

### **Theoretical Acceptability of Thermal Male Contraception: A Survey Among Adult Men in the Nord Department**

**Background:** Responsibility for contraception falls primarily on women, despite knowledge of serious side effects. Preclinical studies have shown that warming the testicles a few degrees during waking hours can block spermatogenesis, opening new perspectives in contraception. This implies developments on the medical plan but also cultural, social, political and economic plans.

**Objective:** The aim of the study is to assess the proportion of men who are aware of thermal male contraception and to define the factors determining acceptance and refusal of its use.

**Method:** Descriptive observational survey carried out in the form of a self-administered questionnaire distributed in general practitioners' offices from April to June 2023 to adult men residing in the Nord department.

**Results:** A total of 23% of the men surveyed said they knew TMC. The responses of these



men did not differ from the rest of the sample in terms of perceived benefits and harms of using TMC. Men who see no benefit from TMC are statistically older. Conclusions Men are interested and open-minded to using a TMC, under reserve of more studies of side effects. Enriching the range of contraceptive methods would be a real step forward in gender equality.

## **2023 Agard**

### **Retrospective study on the contraceptive efficacy of the testicular ring in users followed up at the Centre Simone Veil in Nantes**

**Objective :** To evaluate the efficacy of male thermal contraception using testicular rings in users followed up at the Centre Simone Veil (CSV) in Nantes, and to assess modes of use, motivations and tolerance of this method.

**Material and methods :** Retrospective study including all testicular ring users who consulted the CSV from April 2021 to February 2023.

Retrospective collection of spermograms semen analysis performed to assess the efficacy of this method in achieving a sperm count threshold of less than 1 million/ml.

Anonymous online questionnaire to collect population characteristics, motivations, modes of use, tolerance and user satisfaction.

**Results :** Nineteen users fully completed the questionnaire in full, giving a response rate of 86% (n = 19/22). Users of the device were young men (median age = 28), mostly in couples and without children. The average duration of use was 12.4 months at the time of the study.

Contraceptive efficacy was achieved in 78% of subjects (n=14) as early as the first spermogram at after 3 months of use. All patients who reached this threshold at the first spermogram maintained it at follow-up spermograms. The median time to reach this threshold was 3 months. No unwanted pregnancies were reported.

The presence of side effects was reported by 79% of device users. Side effects were mainly mild and transient. No serious side effects were reported. The use of a testicular ring as a contraceptive method was recommended by 84% of users.

**Conclusion :** The data collected on testicular ring use as a contraceptive method in terms of efficacy and tolerability are reassuring and promising, despite the small numbers involved (n=19).

By offering a non-hormonal contraceptive option, it could help reduce women's contraceptive burden and encourage greater equity in contraception.

Long-term follow-up with a larger patient population is also needed to guarantee the

reversibility of this contraceptive method.

## **2023 Faix**

### **Male Contraception Literature Review**

#### **Summary**

**Context.** — Contraception is an important global health issue, still dominated by female methods. Developments in male contraception could help redistribute the contraceptive burden.

**Methods.** — A literature review was conducted to survey existing options while recalling the criteria for optimal contraception, to establish the principles of a pre-male contraception consultation, and to review different research avenues along with their advantages and disadvantages.

**Results.** — New male contraceptive options are detailed, whether hormonal (androgen therapies, combination of progestogens and testosterone) or non-hormonal, especially thermal, with current results and avenues for improvement. Condoms and vasectomy remain the only two validated options. The recent development of minimally invasive, no-scalpel vasectomy and occlusion techniques helps to simplify the procedure, minimize the risk of complications (pain, bruising, post-vasectomy pain syndrome), and improve efficacy. Issues of regret and the possibilities of repermeabilization are also discussed.

## **2023 Caddy**

### **Who does what? Reproductive responsibilities between heterosexual partners**

Managing fertility and sexual and reproductive health across the life course is associated with numerous responsibilities disproportionately experienced by women. This extends beyond dealing with the physical side effects of contraception and can include the emotional burden of planning conception and the financial cost of accessing health services. This scoping review aimed to map how reproductive responsibilities were defined and negotiated (if at all) between heterosexual casual and long-term partners during any reproductive life event. Original research in high-income countries published from 2015 onwards was sourced from Medline (Ovid), CINAHL and Scopus. In studies that focused on pregnancy prevention and abortion decision making, men felt conflict in their desire to be actively engaged while not wanting to impede their partner's agency and bodily autonomy. Studies identified multiple barriers to engaging in reproductive work including the lack of acceptable male-controlled contraception, poor sexual health knowledge, financial

constraints, and the feminisation of family planning services. Traditional gender roles further shaped men's involvement in both pregnancy prevention and conception work. Despite this, studies reveal nuanced ways of sharing responsibilities - such as companionship during birth and abortion, ensuring contraception is used correctly during intercourse, and sharing the costs of reproductive health care.

## **2023 Alory**

### **Study on so-called male contraception and its users**

The analysis of our interviews allowed us to highlight different profiles of contracepting men, to better understand their journey, the reasons for their choice but also the impacts of this decision.

We can group the respondents into groups with quite similar profiles. They are generally young, around 23, 24 years old, and involved in heterosexual relationships, whether they are exclusive or open. Their education seems to play a decisive role in their contraceptive choice. Some have benefited from a non-sexist education focused on progressive values that has sensitized them to issues of gender, sexuality, feminism, and inclusivity. Others were raised in a more traditional setting, marked by Christian values and a reluctance to discuss subjects related to sexuality and contraception. Overall, these men have distanced themselves from the predominant masculine norms thanks to their personal experiences and encounters. They were often already well-informed on these subjects even before considering so-called male contraception, thanks to their research, readings, and conversations with those close to them.

Social networks and listening to podcasts played a significant role in their search for information on contraception and the different options available. Instagram in particular was mentioned as a platform where they discovered committed accounts and information on so-called male contraception. Some respondents also highlighted the importance of their cultural practices and personal interests, such as dance or other sports, in their open-mindedness and their questioning of gender norms. Thanks to the development of lay expertise by users, access to so-called male contraception now extends to different types of users. Questioning related to sexuality and masculinities seem to be significant consequences among the respondents.

Due to lack of time, we could not deepen our analysis of the socialization of the respondents although the importance of this factor to understand the journey of these men towards contraception has appeared to us. Moreover, our sample of respondents is not representative of contracepting men. Indeed, making contact via our interpersonal relationships may have limited the diversity of profiles, which appear quite homogeneous. Discord allowed us to integrate into our study respondents with more diverse

characteristics, especially geographically. It would therefore be relevant to expand this study to include a larger number of respondents with multiple profiles in order to answer this problem more accurately.

This study has highlighted the positive impacts, in our view, of so-called male contraception on society and the personal development of the respondents. They seem to be more aware of their privileges and sensitized to gender issues. They are more informed about their bodies and question the codes of masculinity.

2023 Doreau

**Male reversible contraceptive methods : women's acceptability to entrust or share this task with their spouse. A qualitative research using semi-structured interviews.**

Contraception is a global public health problem. Current birth control options are almost exclusively focused on reversible female contraceptive methods. Novel male contraceptives have slowly been in development for decades despite men's increasing desire to share responsibility for contraception. A 2015 thesis by Dr Blanc confirms that a majority of men surveyed displayed a consistent interest in male contraceptive methods and willingness to use oral male contraceptives if available.

Research and public opinion seem more and more in demand for male contraceptive methods.

The objective of our work was to assess the acceptability for women to share the burden of birth control within their couple.

In this study, we conducted semi-structured interviews involving fourteen women aged between twenty-one and fifty-three years old to discuss two male contraceptive methods: thermal and hormonal.

The hormonal method by intramuscular injection of testosterone seemed to be much less acceptable than the thermal method. Indeed, the research panel viewed the thermal contraceptive option as more natural and with fewer potential side effects. However, this option was perceived as too limiting due to its fifteen hours of daily wear.

Women thus appear ready for equity in family planning. Regarding novel male contraceptive options, they wish to have further proof of their safety of use as well as their reliability.

**2023 Bosredon**

**Practices and opinions of general practitioners on male contraception: qualitative study by individual interviews with general practitioners in Ile-de-France**

Male contraception has long been limited to withdrawal, condoms and vasectomy, then the development of HMC and TMC made it a topic, about the search for sharing the contraceptive mental load in the couple. General practitioners are at the forefront in the prescription and follow-up of contraception but there are only two studies on their knowledge and opinions on male contraception. The objective of this study was to explore the practice by feedback and the representations of male contraception among a sample of general practitioners in Ile-de-France.

The survey is a qualitative study based on individual interviews with eleven general practitioners in the Ile-de-France region. Sampling was intentional by snowball effect and convenience. The interviews took place from May to October 2022, and were recorded, transcribed and then analyzed in grounded theory.

Withdrawal, condom and vasectomy were mentioned by 27%, 82% and 91% of participants, respectively, and HMC and TMC were known by 10% and 73%. Only the condom had already been prescribed. The lack of available contraceptive means was highlighted, and each method had its own risk-benefit balance. Opinions on the place of male contraception differed, but it would allow the responsibility of the man, the relay of the woman or even the double protection in the couple. It seemed to be part of the current context of changing mores and the search for equality between men and women, but it could be seen as a militant act and men could be reluctant for fear of changing their body image.

General practitioners consider the population favorable to male contraception and believe they have a central role in it, while lack of interest and knowledge persists. Pursuing research, raising public awareness and training physicians would reopen the dialogue on male contraception in the physician-patient relationship.

2023 Lacroix

## **"Contracepting Oneself" A phenomenological study among users of testicular ascent contraception**

**Context:** In France, contraception is medicalized and feminized. Female hormonal contraceptive methods have been questioned following the "pill crisis" in the early 2010s. Contraception by testicular ascent, which consists of raising the testicles into a supra-scrotal position using textile or silicone devices, is experiencing a recent surge in popularity.

**Objective:** To explore the experiences of users of testicular ascent contraception.

**Method:** A phenomenological qualitative study among users of testicular ascent contraception, recruited via activist networks. Eight semi-structured interviews between November 2021 and March 2022. Analysis by labeling, emergence of categories, and synthesis into superordinate themes. Compliance with COREQ-32 criteria.

**Results:** The decision to implement testicular ascent contraception was often motivated by a desire to share the "contraceptive burden" within the couple. The practice allowed users to explore other dimensions of the "self": the desire for parenthood, the discovery of one's body and its physiology, and questioning one's sexuality. They found information via contacts with other peer users who also helped them identify and take responsibility. They were supported and empowered by health professionals, whose follow-up they considered less central to their approach. Armed with scientific knowledge and their experiential knowledge, they have become peer experts in turn.

**Conclusion:** Testicular ascent contraception could meet many aspirations in terms of contraception: a "natural", ecological method that allows the sharing of the burden within the couple. Collaboration between user associations and sexual health care structures could meet the needs of users for their practice.

**2022 Gumowski**

## **The barriers and enabling factors to the development of male contraception \***

\*By this we mean any person with male genitalia

\*\* We will use the term « women » to refer to any person who identifies as such

### **Introduction**

Today, it is essentially women who assume the contraceptive burden. Numerous female contraceptive methods are proposed and used, such as the pill, IUDs as well as patches. As to male contraception, only vasectomy and the male condom are available on the market. Indeed, since the creation of the condom more than 200 years ago, no new method of reversible male contraception has been put on the market (1). And yet, numerous methods for men have been developed, including hormonal, thermal and enzymatic methods. These have however, never reached the stage of commercialisation.

The medicalisation of contraception for women, notably with the commercialisation of the pill, has progressively led to the abandonment of contraceptive methods implicating both partners, such as withdrawal or periodical abstinence (2). First considered as a tool in the reappropriation of bodily control and as a means of emancipation, the « restrictive character » of female contraception has been, since the 1990s-2000s, more and more underlined : mental burden, naturalised and invisibilised female responsibility, financial burden, obligation of medical oversight and often minimised or ignored side-effects (2).

For what reasons have male contraceptive methods not experienced the same growth as female ones ? Being able to determine the barriers and enabling factors to the development of male contraception would allow us to better understand the influence of relationships of power between the genders which rule over the job of contraception in Western society. Fertility control, traditionally proposed by family planning, is based, aside from the condom, on an exclusively female contraception. However, female contraceptives are not suitable for all women, sometimes for medical reasons. Furthermore, 40-45 % of pregnancies in the world remain unwanted, a fact which shows that the current methods of contraception are manifestly insufficient (3). Some studies postulate that the emergence of new male contraceptives would allow for a reduction of this figure (4). It is therefore a public health interest to improve the range of contraception, by also proposing new methods for men (1,4).

### **Method**

The object of this study was to determine the barriers and enabling factors to the development of male contraception. In order to do this, we carried out research of the scientific literature dealing with the development of methods of contraception, as well as research of the grey literature (social media, podcasts) to inform ourselves on the societal aspect of the question. Following this review, three main research axes were chosen : pharmacology, available information and that of society. We then questioned, through semi-directed interviews, 14 experts from domains relevant to our research axes. We



therefore questioned several doctors (a general practitioner, a urologist-andrologist, and 2 gynaecologists), a pharmacologist, a pharmacist, a representative from the pharmaceutical industry and from a diagnostic laboratory, a developer of the Andro-switch, a representative from PROFA, a community health specialist as well as two sociologists.

## Results

For the majority of the participants, the development of contraception throughout history has been centred around women for various reasons, the principal being the historical and societal assumption of responsibility by women for sexual and reproductive health. The revendication by women for the reappropriation of control of their bodies in the 1960s, with the invention of the pill, as well as the lack of interest on the part of men, were also mentioned several times. Concerning the perception of the repartition of the contraceptive burden, the participants are unanimous as to the existence of gender inequality. Finally, hegemonic masculinity and its evolution in society influence, according to them, the interest in male contraception.

According to the great majority of the participants, the information is accessible, of good quality and available to the general public, notably via the internet. One must, however, look for it in order to find it. The participants from the medical field note an increase in demand and interest on the part of patients and the media. All of the participants agreed that the pharmaceutical industry would be more likely to invest in the development of male contraception on the condition that they saw a potential market for it. Furthermore, only a few pharmaceutical companies have the means to finance the final stages of development (clinical trials, certification).

The interviews have demonstrated several barriers to the development of male contraception. First of all, six participants mentioned that the female reproductive system is easier to contracept than the male. The second element underlined is that of the acceptability of side-effects to and by men. Thirdly, several participants raised a lack of knowledge and training of doctors and specialists as well as a lack of information on the question of contraceptive burden in sexual education programs.

Added to the absence of official information, this is a barrier to the general knowledge and interest of the public. All of the participants were in agreement in saying that in the eyes of the decision-makers in the pharmaceutical industry, demand is not sufficient to show an economic interest. This point is incidentally considered the principal barrier. Several participants also asked themselves whether women would be ready to delegate contraceptive responsibility to their partner, them being the ones who assume the principal consequences of an unwanted pregnancy.

The final barrier to the development of male contraception, raised by all of the participants, is the influence of hegemonic masculinity. Indeed, the dominant contemporary definition of masculinity could make men afraid of losing their virility. An evolution of the definition of masculinity and the societal attitude towards the contraceptive burden is nonetheless noted. This could increase the number of men inclined towards male contraception. The

engagement of public health policy is the second enabling factor mentioned. This would allow the population access to official information, which is trustworthy and widely available.

## **Discussion**

Unanimously, the participants consider that the lack of demand concerning male contraception is the main barrier to its development, dissuading the pharmaceutical industries from investing (5). A societal change and an investment on the part of men in the sharing of the contraceptive burden would be necessary to increase this demand.

The emergence of new male contraceptives would allow further reflection on the question of the repartition of the task of contraception. Indeed, this could be individual, where each person is the master of their own contraception, or, in the context of a stable relationship, shared alternatively by both partners. In the case of an unwanted pregnancy, it is the woman who assumes the principal consequences. Delegating contraceptive responsibility to a third person could therefore carry a great risk for her. A solution to mitigate this problem could therefore be to use a long-acting contraceptive, such as an implant, which would avoid, among other things, forgetting to take the contraceptive. The acceptability of side-effects among men is also an important point which influences the development and use of male contraceptives. Indeed, for men, the benefit is considered as inferior to the potential side-effects, which has led to the end of numerous clinical trials. On the contrary, the iatrogenic risk to women is seen as acceptable, as the benefit (not falling pregnant) outweighs this risk. The reasons for which these side-effects are less accepted among men than among women, both of whom share responsibility for procreation, can give pause for reflection.

Concerning the acceptability for men to benefit from male contraception, some studies consider that more than 25 % of men would be ready to try it (6). According to the opinions gathered during the interviews, the male contraceptive most capable of awakening the interest of today's society would be effective, cheap, easy to use, with acceptable and reversible side-effects. While we wait, the Andro-switch contraceptive ring, a new thermal method, already boasts the majority of these characteristics and is currently in the certification phase. Despite some worries as to long-term side-effects, it is today used by several thousand men in France (7). The market arrival of a new, certified male contraceptive would allow a greater number of men access to contraception. This could increase demand by opening a gap in the market, thus inciting pharmaceutical companies to invest in the domain.

## 2022 Travers - Vallet

### **Thermal testicular contraception: A still too little known contraceptive method: a descriptive study of general practitioners in Auvergne-Rhône Alpes by self-administered questionnaire**

#### **Introduction**

Despite the existence of a wide range of contraceptive options, the increase in number of abortions reflects the need to provide new contraceptive solutions and to place the couple at the heart of the debate. In contrast to the large number of contraceptive options for women, the arsenal of devices for men is still limited. Thermal male contraception, developed 30 years ago, still suffers a lack of medical democratisation which counterbalances with men's growing interest in it. Yet, General Practitioners, who are the main prescribers of contraception, do not seem sufficiently informed to offer this alternative to their patients.

#### **Objectives**

To carry out an inventory of the knowledge of General Practitioners about thermal testicular contraception in the AURA region. Analysis of their representations of thermal testicular contraception (TTC) and their motivation to benefit from additional information.

#### **Material and method**

Realisation of a quantitative cross-sectional study of descriptive type via a questionnaire sent by mail to the physicians or distributed by the CDOM in Auvergne-Rhône-Alpes between July 2021 and September 2021. The results were analysed using the Jamovi software with the Chi<sup>2</sup> test.

#### **Results**

We included 153 responses in the analysis. Among these, 30.1% of doctors appeared to be aware of the TTC, most notably in the form of the undergarment (29.1% versus 17.9% for the ring).

The location of practice, additional training courses about contraception and the mode of practice (planning or orthogenetic centre) all have a statistically significant link with the knowledge of the TTC among the doctors questioned. After presenting them a brief and synthetic piece of information, 94.6% showed an interest in additional information and 53.5% felt ready to suggest it to their patients. We can underline that 51.3% are in favour of popularising TTC, so that it could be suggested to patients the same way female contraceptives are.

## **Conclusion**

Male contraception is a topic that motivates a number of national and international clinical trials. Although still in the experimental stage, the results are promising. In response to the increasing demand of patients, General Practitioners would be willing to support TTC projects, provided that additional information and solid scientific evidence are available.

**2022 Richer**

## **Contraception in Martinique: An examination of male contraception and its impact on sexuality**

This study is inspired by our professional practice, from the story of a married couple experiencing difficulties in their sex life, related to a failure of their chosen contraception, that of male contraception. We therefore decided to orient our study in this area on the basis of a wider investigation on the territory of Martinique.

### **Object of this study**

- Study the impact of male contraception on sexuality
- Identify the interest in and knowledge of male contraception on the level of the population of Martinique

### **Methodology**

3 investigations were carried out:

- Among 28 users of male contraception (2 vasectomies, 7 users of the Andro-switch, 19 users of condoms)
- Among the general population, using an online questionnaire on social media. 210 responses underlined the lack of knowledge of male contraception other than the condom
- Among healthcare professionals, through an online questionnaire via social media

61 responses principally from midwives and student midwives attest to the lack of knowledge of male contraception.

### **Results**

Concerning the use of the male condom; the penal ring or vasectomy, the responses focussed on a lack of sexual repercussions, equally on the apparition of dysfunction either in terms of the frequency of sexual relations, or on the quality of sex life. Two telephone interviews were also included in this study. The contribution of this study, to the practice of a sexologist, shows the interest of the population concerning the sharing of the contraceptive burden on the one hand, and on the other, the absence of repercussions on sexuality leading from male contraception, despite the small sample size studied. For the majority, contraception should not uniquely be a woman's issue.

20% of the respondents would be interested adopting male contraception, 80% asked for access for men to family planning in order to talk about male contraception, to exchange on sexuality no matter what their sexual orientation, and to benefit from someone there to listen. The returns do not express any negative repercussions from male contraception on sexual relations; they are completely in agreement. The majority of healthcare professionals

(80%) would hope for access for men to family planning centres, as well as training on male contraception in Martinique.

**In conclusion,**

the choice of contraception is a free and informed process. Prescribers must guide users taking into account the impacts that contraception can have on their sexuality. Users must be able to talk about their sexuality with professionals, whether they are experiencing difficulties or not.

**2022 Pidoux**

## **Perceptions and use of male contraceptive devices in Swiss Romandy**

### **Problematic**

Even though its use remains marginal, male contraception seems to occupy a certain space in the news media. And yet, since the Second World War, numerous methods of contraception have been invented, though none for men. So, where are we with male contraception in 2022? And, more specifically, where are we with this question in Swiss Romandy?

### **Method**

This study proposed to respond to this question by using a social sciences methodology, joining qualitative tools (analysis of semi-directed interviews) with quantitative ones (analysis of a survey). First of all, a review of the literature has allowed us to identify the available male contraceptive methods, as well as those still in the research stage. I then conducted 11 semi-structured interviews by constituting a representative sample of participants from the medical field who could be led to discussing the question of contraception with their patients. I also created a questionnaire on male contraception: distributed in autumn 2021 to the broadest possible range of the population. This allowed me to collect 889 responses. The collection of these data allowed me to examine the perceptions and uses of male contraceptive devices in Swiss Romandy. To conclude, I compared my results with other social science studies dealing with the same subject.

### **Results**

Through my analysis, I identified different actors influencing the development and use of male contraceptive devices. The development of male contraception has been encouraged by the Indian and Chinese governments, by WHO and by Western feminist movements. However, pharmaceutical companies see little economic interest in it, and research on this subject lacks resources.

Regarding users, the results obtained demonstrated that male contraception is of interest to a particular group of men, generally benefitting from a high level of education and coming from the younger generations (25-35 years old). They are, in addition, often in a personal situation which pushes them to look for a new method of contraception.

The fears most frequently reported by users and healthcare professionals relate to the safety, reversibility and comfort of the devices. Finally, contraception for men brings into question established gender norms, which could also present a barrier to its development and use. Despite this, and according to the survey carried out, the men and women of Swiss Romandy seem to be, on the whole, favourable to the use of a new reversible male contraceptive device, if this were to become available.

## **Conclusion**

There is a discord between supply and demand in terms of male contraception. During the past 5 years, the theme of male contraception has gathered importance in the media, and demand for contraceptive methods for men is increasing. On the other hand, the realisation of large scale studies facilitating the development of new methods of contraception is lagging behind. Healthcare professionals represent an intermediary between these two worlds, the users and the researchers, and, faced with ever increasing demand, should be pushing research to engage with the subject.



**2022 Limbour**

### **Male thermal contraception : A shift in the contraceptive burden**

This Master's thesis in sociology deals with the disruption of the contraceptive burden among so-called heterosexual cisgender couples; here I will focus mainly on the use of the Andro-switch, since this was the choice of my interviewees. The male contraception expected by society took the form of a non-medicalised contraception called thermal contraception.

Using so-called non-medicalised male contraception is part of a departure from the dominant norm in which the mental and actual burden of contraception falls on the woman. The use of the Andro-switch upsets existing gender relations. The aim is to visualise and understand the way in which so-called heterosexual cisgender couples have deconstructed the contraceptive burden and the way in which this influences the gender relations in the couples. The interviewees have a 'typical' profile whose deconstruction is already pre-established, making it easier to pursue.

Finally, we shall see, through the resumption of the forms of work linked to so-called female contraception put forward by Cécile Thomé and Mylène Rouzaud-Cornabas in their article "Comment ne faire pas d'enfant, un travail féminin invisibilisé" (How not to have children, an invisibilised female task), the way in which the work of providing information, the day-to-day work, the fact of making sure of being contracepted, and the work on the self carried out by the individuals is managed.

As a result, we will be able to establish where the contraceptive mental burden lies among couples using thermal contraception, in this case the Andro-switch.

This work is based on a study of four couples who have been contracepting for about a year with the Andro-switch. This manuscript consists of a methodological reflection on the construction of my investigation. The first part is dedicated to the way in which the individuals deconstructed the contraceptive burden, then the second part is based on the forms of work defined by Cécile Thomé and Mylène Rouzaud-Cornabas in order to consider the distribution or not of the mental burden associated with the use of the Andro-switch.

**2022 Tcherdukian**

## **Knowledge, professional attitudes, and training among health professionals regarding male contraceptive methods**

### **Objectives**

Health professionals are at the forefront of information and acceptability regarding contraceptive methods, however only one study evaluated their knowledge of male contraception (MC) including hormonal MC (HMC) and thermal MC (TMC). Our objective was to evaluate the knowledge, professional attitudes, and training of French practitioners regarding the management of couples' contraception by male contraception (MC).

### **Study design**

We designed a descriptive, cross-sectional, multicentre study of 2,396 French practitioners belonging to national or regional institutions involved in contraception. We solicited practitioners by e-mail to complete an anonymous questionnaire; we analysed their knowledge, professional attitudes, and training regarding the management of couples' contraception by MC.

### **Results**

The overall participation rate was 18% (427/2,396). Condoms, withdrawal, and vasectomy were known by 98%, 89%, and 76% of the population, respectively. Hormonal MC and Thermal (TMC) were known by 10% and 24% of the population, respectively. Fifty-five percent of the population never or infrequently offered MC during a couples' contraception consultation. Only 14% of the population had ever participated in training on MC; 96% wanted to be better trained on MC, and 87% expressed a willingness to participate in training on the subject.

### **Conclusions**

Health professionals involved in contraception have unsatisfactory knowledge about MC methods based on spermatogenesis inhibition and are eager to have more information about them. To advance the acceptability and dissemination of MC methods, it seems imperative to enhance research in the field and to provide healthcare professionals with an adapted training programme.

### **The contraceptive duty for men: Hypervisibilisation and recomposition of masculinity**

During the past few years, the news has underlined the fragility of reproductive and sexual rights in the world, and the necessity to view contraception as a major political issue. The objective of this study was to examine the effects of male contraception. Based on interviews carried out with 8 men using the Andro-switch in the majority (7) and the jockstrap (1), as well as observation of the Discord group dedicated to users of the Andro-switch, I examined the lived experiences of men using a thermal contraceptive method. I attempted to understand which factors had been determining in their awakening to contraceptive issues, and their will to transform their contraceptive practice. I examined the role of doctors and on the forms of the contraceptive duty when it comes to men. I attempted to see if - and how - the practice of a thermal male contraception had induced a reconfiguration of their model of masculinity. I distinguished three groups among the men questioned.

For the men from the first group (4), it was the difficulties with contraception for their partner which made them aware of the issues. The visibilisation of the suffering of their partner brought about a dialogue which allowed for a shift in the question of contraception; faced with the difficulties related to fertility control for women, it is the fertility of the couple which was considered. Considering that the female methods are not “worth hearing,” and conscious of the contraceptive burden and the role of the man in procreation, it is their engagement in feminism which led the men of the second group (3) to think about their fertility. Finally, for the man in the third group (1), it is the search for a “personal” contraception which led him to use thermal contraception.

For all of those questioned, becoming conscious of their fertility and identifying a need for contraception allowed them to escape from the “irresponsibility of the privileged”. Their experience of male contraception is also an experience of caregiving; they have concerned themselves with their fertility and have taken control of their contraception by transforming their methods. Faced with the scepticism of the medical profession, those men who hope to engage in this contraception help each other, notably in the Discord group Ring Com’Unity, by sharing information, experiences or the contact information of doctors who are willing to provide support for male contraception. On the other hand, other men who have been supported and encouraged by their doctor, and healthcare professionals are more and more numerous in wanting to be trained on the subject of male contraception.

The men who use male contraception in the context of a heterosexual couple take charge of the contraceptive duty which comes from it. Responsible for the fertility control of the couple, they experience the contraceptive burden. The main difference resides in the visibilisation of this burden: if the burden of contraception is invisibilised because it is considered as natural when it comes to women, it is inversely hypervisibilised when it comes to men.

As contraception has been strongly associated with women since its medicalisation, the men

who use male contraception must redefine their model of masculinity in order to integrate it into this practice. For the men from the first group it appears easier to distance themselves from the traditional norms of masculinity in the private sphere than in the public sphere. This notably shows itself in the preference for the Andro-switch, a discrete device which allows them to maintain an “intimate” relationship with their contraception. Thermal contraception requires the positioning of the testicles in the upper position, the testicles being a symbol of the virile model of masculinity, the use of thermal contraception has often been ridiculed by the press (Desjeux, 2012b). The experience of male contraception has led the participants to question their bodies and how they work. This can therefore be valuable as a source of knowledge and men can feel a certain fascination in reading the concrete results of their contraceptive practice in their semen analysis.

In the collectives dedicated to male contraception and on the Ring Com’Unity Discord, many men are experiencing a new type of relationship, that of intimacy. This type of exchange is valued while traditional masculine norms are not appreciated; creating a distinction between men who are “contracepted” - responsible, “deconstructed” men - and the others. Conscious of the possibility of creating new forms of hegemony and the dangers associated with the “heroisation” of users, the men from the second group highlight the importance of not using contraception to validate the ego.

50 For the men from the first group, the use of male contraception seems to not only have created or developed a consciousness of the inequalities between the sexes, and also awoken an involvement in activism. Indeed, two of the men who had never been activists have since become involved in the promotion of male contraception while a third user considers the act of continuing to wear the Andro-switch despite its prohibition by the ANSM as a “small activist gesture”. For Arthur, the man from the third group, the experience of male contraception has been an “activist revelation”. He who had not been an activist before, joined a collective and has since been working for a cooperative which accompanies new methods of contraception in the procurement of CE certification.

Finally, for the men of the second group the experience of contraception seems to have reinforced their involvement in activism. All of them were involved in collective and/ or activism before becoming “contracepted” and today all of them are involved in collectives and associations promoting male contraception. The opinions of each of the participants underlines a willingness to legitimise and democratise thermal contraception. Their involvement in collectives and associations promoting male contraception shows their will for collective organisation in order to transform contraceptive norms.

It is at this point important to remember the limits of this study. First of all, it is geographically and culturally limited, the area concerned being principally France where, as we have seen, contraception is socially and culturally specific. It is probable that the experience of thermal male contraception would be lived differently elsewhere in the world. The method of thermal contraception remains little known to the general public, so one can therefore suppose that the men who were willing to exchange with me hoped to promote this method, it is therefore possible that the results would have been different if I had asked other users. Finally, it would be interesting to prolong this research by analysing the

perspective of men using another method of male contraception, such as hormones or vasectomy: what similarities, and what differences in their journeys? It would be equally interesting to analyse the recomposition of masculinity among the men who had used, and then discontinued the use of male contraception.

**2022 Serna**

**Male contraception : a feminist issue**

**Dispossession or reappropriation?**

Cis or trans, women are getting involved in favour of the development of male contraception (MC), should it be as part of associations (such as Family Planning, as counsellors, midwives or doctors), auto-fabrication workshops making contraceptive underwear or research projects (as biologists, as part of the International Consortiu, for Male Contraception, for example, or even as designers, such as the German Rebecca Weiss who has recently become known thanks to her invention of an ultrasound testicular bath).

Their involvement is not enough to guarantee the direction which MC will take in the future, but it does demonstrate the interest which women bring to the acceleration of its development and spread. And from the moment when MC responds to the needs of a portion of women, we can only hope that it will develop in the most favourable conditions for those women. It is therefore crucial that access to vasectomy and to temporary methods of male contraception should be facilitated. If, in the current state of affairs, this requires more training of medical professionals in the practice of vasectomy and hormonal contraception, the communication of these methods relies above all on a fragile network of associations and activists, which has no equivalent outside of France.

Faced with the new-found attractiveness of male contraception, the role of these activists only seems the more important in promoting loud and clear an unambiguous feminist discourse, denouncing the over-valorisation of a “new masculinity” and instead replacing it with a demand for equality, and not to reduce the question to a deconstruction of masculinity based solely on identity. And thus to integrate this subject into all feminist combats, in order to think of male contraception in the context of the attribution of reproductive responsibility to women, and with all of the economic and social questions which remain the principal barriers to their emancipation.

**2022 Morlet**

## **The fellowship of the ring**

### **Study of an innovation in contraception by testicular ascent - the Andro-switch - and of its effects**

The Andro-switch, as an object and concept, has come to destabilise an environment in place since the 1980's. Thermal contraception was invented in the medical context, at the University Hospital of Toulouse, before being exported to activist movements who took up its de-medicalisation and used it as an object of deconstruction of masculinity. The de-medicalisation continued with the arrival of the Andro-switch, though in an ambivalent manner. Indeed, the number of users of the thermal method exploded in the space of two years because of the sale and use of the device, offering even easier and more de-medicalised access to this method. In the absence of support measuring the experimental aspect of the method, and the utility of minimal medical follow-up through regular semen analysis, the Andro-switch has come to test the limits of autonomous responsibility of those who use this method and the significance that it can have.

A media explosion regarding the ring followed on from this, as well as alarm on a medical level of the dangers which an uncontrolled expansion of this method could represent. By de-medicalising and making accessible this method to a larger number of people through the Andro-switch, Maxime Labrit puts his mark on its journey to institutionalisation, and therefore a form of medicalisation. The suspension of the dissemination, provision and propagation of the Andro-switch by the ANSM, comes to reinforce the need for medical control over bodies and contraception, preventing individuals from being actors in their own practices and is evidence of a form of medical paternalism. Thermal contraception examines the capacity for medicine to accompany people in ways other than by medication and to act on causes more than consequences.

In only a few years, the Andro-switch has come to shake up a method which was spread among a "happy few" deconstructed men, in order to make it more accessible to a larger audience, creating an institutionalisation and regulation of a method which saw itself as distant from the institutional and medical process. This method and the more "homemade" devices will surely continue, if only in some contexts, to be made in this way.

The associative sector will therefore orient its work more on the deconstruction of masculinities faced with a method which, in any case, will spread without their control. The thermal method has effectively, as of now, changed its means of outreach, turning away from a model anchored on French territory to an exportable one. Users of the ring are found in 30 different countries and, even if it's French people abroad, they are beginning to export

it throughout Europe and internationally. The only barrier to its more generalised use is access to semen analyses, which will perhaps evolve in the coming years. New forms of territorialisation of testicular contraception are happening through the growing associative network in France, and is even beginning to export itself to neighbouring countries such as Belgium, Luxembourg and Switzerland. The space for this radical thinking in society constitutes a subject for study in itself, and could be treated not as a marginal phenomenon, but as the early stages of a social, technical or even political innovation through a recasting of the prescription towards free choice, from confrontation to complementarity among the different actors in society.

This study presents a non-exhaustive picture of what the ring says about contemporary French society and numerous questions remain unanswered. It sheds light on social rules which have never been examined up until now, which would be interesting to look at from different angles. We can affirm, however, that the community around the ring gives rise to new profiles of people engaged in contraception and opens the method up from its small deconstructed activist environment. Access to thermal contraception, previously reserved to those in the know, is spreading and reaching different, diverse profiles.

The reconsiderations around sexuality, masculinities et de-medicalisation will perhaps disappear from the profile of users of thermal contraception. Some users of the Andro-switch do have a profile similar to the early users, but an awareness of the crucial importance of contraception as a symbol of liberation for those who menstruate doesn't seem to apply to all users. Furthermore, the acceptance of the opportunity cost of an experimental contraception by the users of the Andro-switch seems to rely upon a co-acceptation with their partners who menstruate, who are often the ones who introduce this reflection. In addition to this, those partners sometimes continue to carry a portion of the contraceptive burden, being the ones who suffer the consequences of improper use. Profiles less inclined to engage in the questioning of male domination brought about by testicular contraception are coming to light through the use of the Andro-switch. Studying the users of the Andro-switch and thermal contraception questions their way of viewing gender in our society, the direction of change in relationships with others through sexuality (though not uniquely) and therefore poses questions of a cultural nature.

According to Françoise Héritier, "it is therefore within the logic of male domination that it is so difficult to bring up the problem of male contraception," because "medicalised male contraception is very much primarily seen as an intervention which threatens the physical integrity of the male body, with consequences above all to identity, and also of an organic and psychosocial nature, due to ideas attached to the nature of sperm and of the specific functions of male genital organs." Wouldn't de-medicalised testicular contraception

represent a willingness to control and dominate the medical profession on the part of people with testicles? And this new form of dominance through choice - representative of male privilege - is it not finally just violence, symbolic of a renewed domination by people with testicles over people who menstruate?

**2022 Macé de Gastines**

**Qualitative study: the opinion of men aged between 18 and 33 on the potential use of testicular thermal male contraception**

### **Context**

In 2019, the abortion rate reached its highest level in France for 30 years. The need for fertility management is real. In seven cases out of ten, the contraceptive charge is carried by the woman. Though thermal male contraception has proved its effectiveness for more than 20 years, it is not yet available on the market. Nowadays, it is used without medical supervision by some men who devise their own contraceptive device.

### **Objective**

To explore the opinions of men aged between 18 and 33 on the potential use of thermal male contraception (TMC) by testicular ascent.

Method: A qualitative study has been carried out using semi-directed individual interviews and a focus group. Data analysis was performed relying on the "grounded theory method".

### **Results/Analysis**

16 men aged between 18 and 33 years were interviewed. The majority of them expressed a deep interest in the development of male contraception. However, the lack of available solutions and the contraceptive norm which they follow curbs this interest. The consequences on the quality of life and the usage comfort are major obstacles against the adoption of TMC. The impact on male status and feedback from others were also mentioned. According to participants, this contraception method appears more acceptable for men who are involved in a stable relationship. Obtaining the trust of women is essential. Originality, simplicity, independence and absence of constraints on the sexual act are quoted among the sources of motivation. Interviewees underscored the need to be informed and reassured. They would appreciate feedback from preliminary experiments. In addition, they advised on a greater involvement of society regarding sexual education from Middle School to University. To that regard, they suggested the creation of dedicated days similar to "Defence and Citizenship Day".

### **Conclusion**

Thermal male contraception raises surprises and fears. Information and education are essential to break taboos and reassure the population. The pharma industry does not seem



interested in addressing this market, but associations, collectives, as well as a cooperative society of collective interests are developing. These are early initiatives to foster male contraception adoption and to push towards the certification of testicular contraceptive devices in the European market.

**2022 Lalieux**

**“Retrospective follow-up of men having chosen Thermal Male Contraception (TMC), consulted at City Planning Evaluation considering its effectiveness and side-effects.”**

### **Introduction**

Today, a great number of unwanted pregnancies are still occurring. The majority of today's contraceptive methods are feminine, while for men, officially there only exist three: withdrawal, the condom and vasectomy. And yet, during the 1990's, several studies showed the contraceptive effectiveness of increasing testicular temperature. Men are more and more implicated in the sharing of contraception. Alternatives, still not recognised as medical devices, have been invented in the past number of year, and are freely on sale on the internet. However, the medical profession is not trained to accompany those men who wish to engage in the thermal method of contraception. A consultation at the family planning of Saint-Pierre was therefore put in place.

### **Objectives**

To study the effectiveness and side-effects of Thermal Male Contraception (TMC) Equipment and Methods

A retrospective observational study was carried out at City Planning, from May 2020 to May 2021, on healthy men between the ages of 20 and 40, having been using a TMC device for at least three months. Semen analysis was requested at the beginning of the process, and was realised once every 3 months thereafter. An online form was sent to the participants to gather the undesirable side-effects.

### **Results**

Out of 29 men, 6 were excluded because of an abnormal semen analysis or a medical contra-indication. In the end, 16 men decided to use the thermal contraceptive method. All participants used a contraceptive ring (Andro-switch®), except for one who used a heating boxer short (Spermapause®). 64% of the men were successfully contracepted from the third month. 25% of the men studied had not attained the contraceptive threshold of 1 million spermatozoa/ ml during the period studied. No unwanted pregnancies occurred. The most often-reported side-effects of the ring are cutaneous irritations and testicular discomfort. No-one mentioned an effect on the libido.

### **Discussion**

TMC is an effective contraceptive method, which is natural and promising, and which men and couples are ready to use. More studies, of a larger sample-size, and over a longer period of time, are essential in order to be sure of its effectiveness, security and reversibility.

## **2022 Vanhakendover**

### **Contraception as a health and public policy issue: how a shift towards the public health domain has affected the liberty and legitimacy to use alternative contraception.**

We have seen, in the case of contraception, how an object of private interest becomes one of public interest. Because of this, the subjects pass from the individual to the entire population. What is more, we have seen the particularity of the case of contraception by observing the shift from the social domain, which concerns couples, to the domain of gynaecological medicine, which is focussed on women. If medical care can bring with it a certain form of freedom, it can also trap the person in a pre-defined schema according to the limited vision of the gynaecologist. These shifts have clearly allowed for and sustained an unequal and gendered structure through the monopolisation of practice and authority over legitimate knowledge. The overcoming of the freedom and legitimacy of this normative system allows some to find another form of freedom through the deconstruction of gender expectations and de-medicalisation.

“We are really interested in the idea of “demedicalising” this question, and being able to take charge of it for oneself by making one’s own contraceptive underwear, while maintaining a deeper questioning of the status and role of men” (Boulocho).

On rediscovering the data coming from the interviews carried out in 2019, we have been able to bring to light several elements which are initially set aside. A new approach has however allowed us to examine the medicalisation of contraception and to consider alternative methods, male and non-hormonal, as means of emancipation. This research on a new form of auto-determinist freedom reflects the contemporary tendency to question the dynamics reproduced in the medical domain, such as for example the fact that health is often exclusively thought of as being medical. However, many political and social aspects are also linked to health. The shift of a subject or practice such as contraception into the medical field is not trivial, as it is in this way that it is partly depoliticised and de-socialised. It’s once in the machine of health expertise that the asymmetry in the relationship between a doctor, a patient and the system of the production of legitimate knowledge works against the attempt to live in one’s body in a different way.

**2022 Vanackere**

**Male contraception: literature review and qualitative study of general practitioners evaluating the barriers and enabling factors to its development.**

**Introduction**

In our society, contraception is primarily managed by women, and the consequences of this unequal distribution are multiple: exposure to side-effects; mental and financial burden for women and a lack of means of fertility control for men. The goal of this study is to identify the barriers to and motivations for the development and use of male contraceptive (MC) methods, by exploring the advances in scientific research on one hand, and by seeking the opinions of general practitioners (GP) on the other.

**Methodology**

This study consists of a narrative review of the literature in order to retrace the development of MC methods, as well as the historical and socio-cultural context in which it exists. This will be followed by a qualitative study including a focus group and semi-directed interviews with GP's, which will evaluate their knowledge, attitudes and expectations around MC, and will identify the barriers and enabling factors to its development.

**Results**

In the scientific literature, we find an exponential growth in international research concerning MC. Multiple methods of MC have been and are currently being studied, some of which are already being used on a relatively small scale, but no new methods have been officially put on the market since the vasectomy.

In this qualitative study, the GPs surveyed said that they had generally very little training in MC methods, and reported weak demand among their patients. They are rather in favour of an expansion of MC methods and some think that they are well-placed to take charge of this expansion. According to them, the promotion of MC will require new reversible methods to be put on the market, a change of mentality through raising awareness in the general population, and better training for doctors.

**Conclusion**

Despite years of research and the investigation of numerous avenues for MC methods in the scientific literature, the road to an equitable partition of the contraceptive burden remains long. Numerous obstacles block the development of MC, which would despite this bring numerous advantages. Different avenues are suggested in order to enable MC, implicating the participation of GPs.

2022 Baran

**Assessment of a guide for thermal male contraception for practical use in consultation by general practitioners in Isère, Savoie, and Haute-Savoie.**

**Background:** The desire of men to contribute to a shared contraceptive responsibility, the persistence of a significant number of contraceptive failures, and the current distrust towards hormonal contraceptives are all encouraging a broadening of the contraceptive landscape. Thermal male contraception (TMC) is a natural, effective, and reversible method, which is still little known among doctors and needs to be properly guided for its correct use.

**Objective:** To evaluate the thermal male contraception guide suggested by Drs MIEUSSET and SOUFIR for practical use in consultation by general practitioners in Isère, Savoie and Haute-Savoie.

**Study design:** We designed a quantitative, epidemiological, descriptive, cross-sectional study. A computerized questionnaire was sent to general practitioners in Isère, Savoie and Haute-Savoie, through various email networks, between March 22 and June 12, 2022. 224 doctors were included. Their responses were used to collect their opinions regarding the guide and to analyze their knowledge, opinions and obstacles to TMC follow-up.

**Results:** The guide is considered interesting (for 92,4% of respondents) and understandable (for 90,2% of them). In terms of format, it is sufficiently concise (for 68,3% of physicians) and fluid (for 62,5% of them) but not attractive for the majority of respondents (49,6%). The changes to be made would be the addition of visual elements such as diagrams, images of devices, or links to access practical information for 75.5% of respondents. Colors should be added for 49.5% of them. 52,2% of the doctors questioned would feel ready, after reading the guide, to follow a patient wishing to use TMC. However, 3 major obstacles limit the expansion of TMC: the fear of poor patient compliance for 48% of the physicians surveyed, the lack of physician training for 44,6% of them and the lack of large-scale studies on the subject (the lack of a marketing authorization is an obstacle for 23,6% of respondents, the fear of long-term adverse effects for 22,7% and use limited to 4 years for 21% of these physicians).

**Conclusions:** Although our thesis is an innovative work on a varied sample, it is not representative of the current population of general practitioners. Our study shows that physicians are interested in TMC and could use this practical guide to accompany their patients wishing to use this method, even if this manual could be improved. Its revision could be the subject of a future thesis. The obstacles that still limit the development and dissemination of TMC could be overcome by conducting large-scale studies and setting up training courses adapted to general practitioners.

2022 Nguyen

### **Post-abortion contraception, an opportunity for male partners and male contraception**

**Objectives:** Men who accompany their female partners at the time of an abortion represent a unique population who may be amenable to receiving postabortion contraceptive services. We sought to examine their interest in receiving both counseling and contraception when available.

**Study design:** We analyzed a subset of survey data on the experience of accompanying male partners at the time of an abortion at two urban family planning clinics. We examined their beliefs about shared contraceptive responsibility, attitudes towards participating in contraceptive counseling, and willingness to use novel male contraceptives. We conducted bivariate analyses and logistic regressions for sociodemographic and reproductive factors linked to these outcomes.

**Results:** Of 210 male partners surveyed at the time of an abortion, nearly three-quarters characterized preventing unwanted pregnancy as a shared responsibility, believed in the importance of attending contraceptive counseling with their female partner, and reported willingness to use novel male contraceptives. Contraceptive method used when discovering the pregnancy was neither linked to men's attitudes towards counseling nor interest in using novel male contraceptives. Individuals between the ages of 25 to 34 (aOR: 2.69; 95%CI: 1.32–5.48), those with a college education (aOR: 5.49; 95%CI: 1.31–22.94), and those who had never experienced abortion (aOR: 2.21; 95%CI: 1.08–4.55) exhibited greater interest in using novel male contraceptives. Black respondents (aOR: 2.33; 95%CI: 1.01–5.38) exhibited greater interest in receiving contraceptive counseling with their partner and a counselor following the abortion.

**Conclusion:** For male partners, abortion may be an opportunity to engage men in contraceptive counseling and when available, offer new male contraceptives.

**Implications:** As few men receive comprehensive contraceptive counseling, engaging men when they accompany their female partners to family planning clinics may be an additional strategy to prevent unwanted pregnancy.

2022 Lemonnier

## **Determinants of the recommendation of male contraception by general practitioners practicing in Brittany**

**Introduction:** Currently in France, the available male contraceptive methods are limited to the male condom, withdrawal, and vasectomy. However, other methods have been studied for many years, some of which have proven their effectiveness and safety, and users have expressed a growing interest in sharing contraceptive responsibility within their couples in several studies. In this study, we therefore questioned the role of general practitioners in the dissemination of these contraceptive methods and the factors influencing their recommendations.

**Materials and methods:** This is a cross-sectional descriptive epidemiological study carried out through questionnaires addressed to general practitioners and interns practicing in Brittany. It was composed of 8 parts, questioning the prescribers about their socio-demographic characteristics, their knowledge in the field, the factors influencing their recommendations for each contraceptive method (male condom, withdrawal, CMT, CMH and vasectomy) and their visions of contraception.

**Results:** 319 questionnaires were analyzed, with respondents being mostly young and female. Only 2.5% of our respondents felt well trained in the field and 91% of them were interested in additional training. The "new" methods of male contraception were the least mentioned, due to a lack of personal knowledge, lack of official recommendations, or lack of requests most frequently. Despite a rather positive vision of male contraception and few ideological and cultural reluctances reported by the prescribers, certain visions of contraception were significantly linked to their recommendations.

**Conclusion:** Despite a non-negligible interest of prescribers concerning male contraceptive methods, the lack of knowledge, official recommendations, and available resources strongly limited them in their recommendations. More comprehensive initial training and additional training in the field could allow a better dissemination of these methods by general practitioners. Greater investment by public authorities in research and the promotion of these contraceptive methods would facilitate the adherence of prescribers. However, while additional training will help to fill gaps in this field, the groundwork to minimize the impact of prescribers' preconceived ideas on their recommendations will be slower.

**2022 Anand**

### **Male Contraceptives: A Future Where the Burden of Contraception Is Shared**

The rising population of the world has always led, leaders to ponder the situation to have control of the stupendous rise of the population for many decades. Time and time again, strict laws have been imposed that were many a time even controversial for different groups of the community. Despite the fact that both men and women bear the weight of this problem, women are forced to abide by the strict laws pertaining to abortion or contraception (Chng, 1983). It was observed that even community pharmacists of Jordan had a relatively negative notion regarding male oral contraceptive pills (Barakat et al., 2022). Almost one-third of pharmacists were unaware of the presence of male contraceptives and half of them were not sure about the mechanism of action and the active ingredient involved. This illustrates the lack of awareness, knowledge, and motivation in the community. Community pharmacists are one of the more easily accessible health care providers who often provide free consultations, and their lack of awareness increases the hesitancy in males regarding the newer approaches to male contraception (Nazer & Tuffaha, 2017).

Many methods are underway to produce an effective contraception method for men as the cause of its rejection is cultural norms, side effects, and poor compliance. This scenario is quite comparable with developing countries also where even after decades of research, men still lack reliable and reversible methods of contraception. A very potential much-awaited intravasal device named RISUG (Reversible Inhibition of Sperm Under Guidance) is currently under trial (Khilwani et al., 2020). Many male contraceptives have given hope and failed; many are still waiting for the green flag from the authorities. The process of achieving effective male contraception has been quite a journey for decades but unfortunately, its downside has been the unexpected burden on women to be responsible for their sexual behavior and being denied to choose to do what they want with their bodies. The world has seen constant debates on abortion laws and policies. It could be a better and fair debate if men can have an effective male contraceptive themselves.



## **2022 Vannerem**

### **Male contraception: a study on the expectations for and acceptability of new methods**

#### **Introduction**

The range of contraceptives is essentially focussed on women, and the methods for men are less numerous. The purposes of this study are to evaluate men's satisfaction with their contraception, the interest that they would have for alternatives in this domain, and finally to identify the factors which decide whether a method is acceptable or not.

#### **Tools and methods**

This was a qualitative, cross-sectional, non-interventionist study, consisting of semi-directed interviews, spread out over four weeks, from 09/03/2021 to 09/04/2021. It was carried out through telephone or videoconference interviews.

#### **Results**

Twelve semi-directed interviews were carried out. Six of the participants said that they were satisfied with their contraception, four said that they were unsatisfied and two expressed an ambivalence to the fact that they did not manage their own contraception. Ten of the participants said that they were interested in new methods, two said that they were not interested.

#### **Discussion**

In this study, one man in two is dissatisfied with his method of contraception. The perceived advantages are the ease of use and the absence of side-effects. Those who expressed dissatisfaction want to take control of their fertility for themselves and to share the contraceptive burden with their partner. If men's interest in contraception is real, few among them would be willing to adopt a new method. This new method would have to present numerous advantages, notably a great usability, before being chosen.

#### **Conclusion**

A dissatisfaction exists among men when it comes to contraception. They are interested in alternatives, but many are hesitant when it comes to a concrete change. The factors judged to be the most important are the ease of use and the side-effects. Men in stable couples seem to be more in search of alternatives.

## **2022 Buissou**

### **Contraception Information: Men's Expectations**

**Context:** In France, 33% of pregnancies are unplanned, despite widespread contraceptive coverage, and result in voluntary termination in six out of ten cases. The effectiveness of contraceptive methods is closely linked to the partners' consent for optimal use and the satisfaction level of the woman and the couple. The French National Authority for Health acknowledges that men have a role to play in sexuality and procreation and should be informed just as much as women. This study aims to explore men's expectations in terms of information about contraception from their general practitioner.

**Method:** A qualitative study using semi-structured individual interviews with men aged 18 to 55, with data analysis inspired by "grounded theory".

**Results:** To learn from the doctor, men need a trustful relationship, with humanized and personalized information, provided by a doctor who is free from social norms and interested in the subject. Their learning begins in the family, provided there is a conducive environment. They will supplement their knowledge by experimenting, and especially by asking to learn from the doctor, to acquire both theoretical and practical knowledge. They may be hindered in their request by their preconceived ideas about the doctor, their socially influenced perceptions of contraception, and also by self-censorship. They need to be prepared to become educators and thus pass on their knowledge to their children. At every difficulty in learning towards teaching, the doctor can provide an appropriate response. Some men have evolved their perceptions of couple contraception, becoming aware of their place and ultimately viewing contraception as a shared responsibility. For them, contraception will become a couple's affair; they will discuss it as a couple and support their partner. Some even move towards taking over the contraceptive burden.

**Conclusion:** Men are keen to get more involved in the contraceptive journey, aiming for shared responsibility. They want to learn to be the doctor's relay, get more involved in couple's contraception, or even consider taking over the contraceptive burden. The general practitioner then plays a key role as an informant but can also be the trigger for a change in mentality.

## 2022 Tran

### Male Contraception: What Options are Currently Available?

Male contraception is still primarily based on the use of condoms and the option of vasectomy. Due to the limitations of current methods, both male and female, novel approaches have been developed, although none have yet been validated. Several serious avenues—sometimes used off-prescription—are emerging. They still require device certification and phase III studies to provide men willing to engage in contraception with new, effective, safe, and validated alternatives.

**2021 Schaub**

### **Male Contraception: Give Up or Believe in Its Future?**

#### **Summary:**

Male contraception is a topic within sexual health that is still largely unknown to society at large. While there are over a dozen contraceptive methods available to women, only condoms and vasectomy (which is, incidentally, considered permanent) are available to men. This has led me to the following question: why should contraception be solely the responsibility of women, and what are the barriers to research in male contraception? My work lists methods validated by scientists, methods not validated but used by some men, and promising studies that are underway. I have also looked into the various barriers to male contraception, which will be discussed in order to better understand the skepticism towards these contraceptive means, and we will see that the path to equality in this area is still long. However, different possible actions will be proposed to change mentalities, open minds, and show that contraception is mainly about sharing and not individual responsibility.

**2021 Richard**

### **Male contraception: What do women think?**

#### ***Introduction.***

Women currently bear the most responsibility in contraception, with a wide choice of methods, while only a few existing male contraceptives are available. However, it has been shown that men are willing to get involved in birth control and to control their own fertility. Our research was focused on the female population and a survey was carried out to explore women's perceptions of male contraception.

#### ***Methods.***

An observational quantitative cross-sectional study using a self-administered-questionnaire was carried out between November 2019 and February 2020. All women aged from 16-years-old to menopause completing the questionnaire were included. Descriptive statistical

analyses were conducted, qualitative variables were expressed as counts and frequency.

### **Results.**

In total, 379 interpretable completed questionnaires were included. Among the women, 69.7% were in favour of letting men deal with contraception, without referring to a specific method. After having been made aware of the medical information concerning existing male contraceptives and those in development, the proportion of women in favour dropped to 46.7%. The most acceptable method for a majority of women was the male pill, which is still being developed. The majority (78.4%) of the women in our survey felt insufficiently informed about male contraception.

### **Discussion.**

In our study, women seemed to want to share contraceptive responsibility with men, but the lack of information and of acceptable contraception methods available remained an obstacle. Although larger-scale studies are needed to confirm these results, the development of a wider range of male contraception methods seems to be what both men and women have long been expecting.

## **2021 Le Guen**

### **Men faced with contraception: between gendered contraceptive norm and process of differentiation**

In this article, we analyse the contraceptive practices of men based on the data from the Fecond 2013 survey. Our results allow us to show that the use of contraception by men in France is structured by the French contraceptive norms already visible for women. Furthermore, we show that this norm is gendered. By requiring the transition from the condom to the pill when the relationship becomes stable, this contraceptive norm also requires the transition from a responsibility which is a priori shared by both partners to one that is exclusively feminine. Finally, the choice of so-called male contraceptive methods by men in stable relationships could be the result of a process of “differentiation” allowing to express different models of masculinity.

**2021 Rouanet**

**Male contraception, it's (still) coming soon**

**The Andro-switch contraceptive device: feedback on users' experiences**

Our study has allowed us to show that men are motivated to take charge of their contraception. It has also allowed us to demonstrate the advantages and disadvantages of the Andro-switch device and to propose some ways to improve its use. This method is little-known among health-care professionals, which makes the most motivated men use it without medical support.

To this lack of knowledge on the part of medical professionals are added other barriers (social; psychological, economic, political) which persist despite the demand to share

contraceptive responsibility which has been emerging in the past number of years.

We are in a new period of the history of contraception when women are questioning the methods of contraception which are proposed to them and are demanding methods which are less burdensome and more “natural”, and men who are calling for the right to see methods destined for their use being developed.

It seems important to bring interest to this demand and to lift the barriers which prevent the development of male methods.

In addition, we have seen that the question of the sharing of contraception has also some importance in the goal of moving towards equality between the sexes.

Following on from this work, we can ask ourselves about the future of this method in the range of contraceptive methods and on the manner in which it would be possible to increase access to it.

## **2021 Moreau**

### **What are the barriers to the development of male contraception? A review of the social and medical science literature.**

#### **Introduction:**

Since the revolution in contraception in the 1960's, the range of feminine contraception has not ceased to expand. The methods of male contraception remain limited to the old ones: withdrawal and condom, to which we add a method of sterilisation: the vasectomy. How to explain such an asymmetry between the range of contraception for women and for men in 2021?

#### **Objectives:**

The objective of this study is to identify and analyse, through a literature review, the barrier

to the development of male contraception (MC).

**Method:**

A review of the literature was carried out on the principal databases in medical and social science. After inclusion and reading of the articles, a list of potential barriers was established, then checked against the data collected in the research.

**Results:**

21 “review” articles, 214 clinical trials and acceptability studies et 38 sociology articles have been included and analysed. The main potential barriers identified were to do with effectiveness, side-effects, reversibility, acceptability and the traditional gendered social perceptions.

**Conclusion :**

More than 50 years of research has proven that effective, reversible MC without side-effects is possible. Men and women declare themselves as ready to use MC. The development of MC appears to be blocked by the absence of investment from the pharmaceutical industry, and traditional, gendered social perception.

**2021 Joubert**

**Thermal male contraception : Study on motivations, choice and satisfaction among users**

**Purpose:** To evaluate the motivations, experience and acceptability of a thermal male contraception (TMC) in an historical cohort of men using TMC as the couple’s only method of contraception.

**Materials and Methods :** We solicited 72 men who started using TMC between 2011 and 2019, using an online anonymous survey (93 questions) exploring population characteristics, contraceptive history, motivation for choosing TMC, patient experience at the various phases of the method, relations with partner and environment, and satisfaction with this method.

**Results :** Sixty seven men responded (93% response rate), 63 were included and completed

the survey (94% participation rate). The main motivations for choosing TMC was “not using hormones” (n=59/63, 94%) and using a method regarded as “natural” (n=49/63, 78%). Most men (68%) adopted the method in less than 2 weeks. During the contraceptive phase (n=59 men), they described a statistically improved sexual satisfaction compared to when using previous contraceptive methods (3,50 +/- 0,64 versus 3,23 +/- 0,76, respectively, p<0.01) and a high confidence (100% rather/totally confident partner) and support (88% rather/totally supporting partner) inside the couple; most men (n=35/59, 59%) improved their self-esteem. The main negative aspect was discomfort in 24% of patients. The overall satisfaction score of using this method was 3,78 – 0,46/4 and 100% of men would recommend the method to other men.

**Conclusions :** Men using TMC successfully assumed the mental burden of a daily action for the couple’s contraception. This positive evaluation, together with the already published contraceptive efficacy and reversibility of TMC, should encourage the development of this method.

## 2021 Hajji

### **Male contraception: update on the literature and practice in Brussels**

**Introduction:** 10 years passed between the initial idea to use hormones for contraceptive purposes for women and their arrival on the market. For men, the “Task Force on methods for the regulation of male fertility” was created in 1973. This group of experts from WHO had the mission of developing new methods of contraception. In 2021, 48 years and numerous publications later, there still does not exist a single molecule aimed at reversibly contracepting men on the market. And yet, certain actors on the ground have decided to take their fertility in hand and to propose male contraceptive protocols. What is the quality of these protocols?

**Method:** Update relating to the literature supporting the practice of male contraception and



a comparison with the protocols proposed in the field.

**Conclusion:** 2 available methods emerge: hormonal contraception and thermal contraception. Even though their effectiveness is established, the current state of the literature does not allow for the recommendation of a generalised practice of hormonal or thermal male contraception. The reversibility and harmlessness of hormonal contraception, even though suggested by a phase 3 trial and a double-blind trial, must be more solidly established by studies using a larger sample size. Their long-term effects remain unknown. As regards thermal contraception, while literature studying the effect of heat on the testicles does exist, its use in a contraceptive setting is very little documented. At the current time, both hormonal and thermal male contraception can be proposed, on an experimental basis, to young, informed subjects in good health, motivated by the sharing of contraceptive responsibility and of the health of their partner.

## 2021 Bâ Djaballah

### **Men's Opinion on the Role General Practitioners Give Them in the Choice of Couple's Contraception. Qualitative study among men aged 18 to 50**

**Introduction:** Contraception plays an important role in the lives of couples. Despite the existence of many theoretically effective contraceptive methods, a high number of failures persist. Men's involvement in couple's contraception could reduce these failures and improve reproductive health. The general practitioner, perceived as a person of trust and the main prescriber of contraception, could be one of the vectors of men's involvement. This study aimed to explore men's opinion on the role that general practitioners give them in the choice of couple's contraception.

**Method:** Qualitative survey by semi-structured individual interviews of fourteen adult men carried out from March to August 2020. Participants were recruited by snowball effect in

general medicine practices. After collecting written consent and with the help of a guide containing 7 open questions, the interviews were recorded, fully transcribed, anonymized and then analyzed in units of meaning and themes. A favorable opinion from the ethics committee of Angers University Hospital was received.

**Results:** The men interviewed expressed a desire to be involved in their couple's contraception. However, there appeared to be limits, ambivalences, and even contradictions on the possible ways of this involvement. The lack of contraception for men, the importance of societal habits, and the current methods of prescribing contraception have, according to them, favored the idea that contraception remains the prerogative of women. Although men described the general practitioner as a preferred interlocutor, none of them had consulted him about contraception. On the other hand, none of the men were approached by their general practitioner and they appeared to have little room in the choice of couple's contraception.

**Conclusion:** Men questioned their legitimacy in this field and their place seemed still poorly defined. The exchange between the man and the general practitioner about contraception appears as an essential factor to modify men's representations of their place in the couple's contraception and lead them to be more involved. Men were in favor of this as long as the initiative came from the doctor.

**2021 Bouchard**

**Barriers and motivations of women to the use of male contraception: a qualitative study by individual interviews with 14 women from Isère**

**Context:** Today, there is an asymmetrical distribution of responsibility for contraception in heterosexual couples. This task falls to women in 70% of the cases. Yet, male contraceptive research was conducted simultaneously with female contraceptive research. Moreover, there is clearly a need for further research into male contraceptives due to factors such as the number of unintended pregnancies, mistrust in or hormonal intolerance of female contraceptives, and the willingness of men to be involved in contraception and to control their own fertility.

**Aim:** The objective of the study was to explore, in a sample of women, motivations and barriers to the use of male contraception with their sexual partners.

**Method:** This study was based on a qualitative methodology. Fourteen semi- directive interviews were carried out with women of various backgrounds. Interviews were transcribed and the verbatims were analyzed with an inductive thematic approach.

**Results:** The barriers to the use of male contraception described by the female participants included: the constraints of male contraceptive options, the fear of discomfort, and anxiety surrounding potential side effects on both the body and sexuality. The use of male contraception requires trust in one's partner because of the impact on a woman's body in the case of failure. Participants were particularly interested in practicality, a low environmental impact, and non-hormonal methods. Additionally, male contraception can be used at the same time as a female one to ensure contraceptive security. It can take over when female contraception cannot be taken due to hormonal intolerance, or when it fails or is forgotten. Social-gender stereotypes can also be a barrier to the involvement of men in family planning and to the use of male contraceptives. Indeed, contraception is still considered a women's business. Greater access to male contraception could lead to more equality between men and women and could give men a new role in heterosexual relationships by involving them in contraceptive decisions.

**Conclusion:** Theoretically, women seem to be ready to share the contraceptive burden with their partners. In a practical way, the access to contraception is suppressed by the lack of diverse options and the constraints of male contraceptive methods currently available. With the recent social changes, it could be the right time to expand male contraceptive options and supply. Proving that there is an emerging market could encourage industry to increase investment in research and development. At the same time, the medical community could undergo more training on male contraception in order to spread objective information and thus break gender stereotypes involving contraception.

**2021 Reynolds-Wright**

**Will Men Use Novel Male Contraceptive Methods and Will Women Trust Them? A Systematic Review**

Novel male contraceptives have been in development for almost as long as female methods, yet there are no products available on the market. Hormonal approaches tested clinically to date include the use of oral, injectable, implant and transdermal methods. The study of attitudes toward male contraception has been inconsistent and there have been no systematic reviews drawing these data together. We conducted a systematic review of the available evidence for male and female acceptability of novel male contraception. We identified 32 studies and present a narrative synthesis of quantitative data and a thematic synthesis of qualitative data. In novel drug trials, the proportion of male participants willing to use a male contraceptive ranged from 34.0% to as high as 82.3%. In studies regarding hypothetical drugs, male willingness to use ranged from 13.6% to 83.0%. High proportions of women (42.8%–94.0%) reported willingness to use a novel male method in both hypothetical studies and actual drug trials. In qualitative studies, both men and women expressed the desire to share responsibility for contraception. There is consistent interest among both men and women in novel male contraceptive methods and willingness to use them. The systematic review was registered with PROSPERO: CRD42020173281.

**2021 Cuvelier**

**Contraception: Knowledge, Interest, and Involvement of Men.**

This work allowed me to highlight that men overwhelmingly felt concerned about contraception and that it was not solely a woman's affair. Men's knowledge about contraception is focused on the most widespread methods in France. Other contraceptives, both female and male, are less known. Men's involvement in the couple's contraception is present but remains limited. We have shown that knowledge has a positive effect on men's involvement in contraception, but many other factors need to be taken into account, such as women themselves, health professionals, experience, society...

My overall research on the subject, as well as the survey among men, led me to question the place I would give to men as a future health professional. I realized the importance of the midwife's role in informing and preventing women, men, and couples. If I have the opportunity, I won't hesitate to participate in awareness and prevention interventions regarding contraception. In my future practice, I will try to be mindful of the place I give to partners during contraception appointments and will try to dedicate time to give them the necessary information so they can be involved in the couple's contraception.

This work also allowed me to discover and deepen my knowledge about male contraceptive methods that I knew little about.

Men's involvement in the couple's contraception is not only reduced to the use of a male contraceptive method by the man. Men can get involved in various ways (accompanying to appointments, participating in the choice of method, financial participation...). It was sometimes difficult for me not to reduce men's involvement to taking male contraception.

The evolution of mentalities and behaviors towards shared responsibility for contraception within a couple will depend on information and prevention policies, economic and financial policies, health professionals, the questioning of stereotypes, and everyone's viewpoints.

At our level, we all have a role to play.

In recent years, we have seen emerging initiatives from men and women that are disrupting the classical norms associated with contraception.

In a few years, it would be interesting to redo this study to highlight or not the evolution of mentalities and behaviors of everyone in the field of contraception.

**2020 Dupont**

### **Thermal male contraception (TMC) : a systematic review of the literature**

The increasing demand to share the contraceptive burden in couples and the absence of effective male contraception available on the market led us to research the scientific data on TMC.

We carried out a systematic review of the literature, which allowed us to identify 14 articles from interventional studies published between 1965 and 2019. Their goal was to study the inhibition of spermatogenesis in men by a low intensity increase in testicular temperature. Some studies have also examined its reversibility, contraceptive effectiveness and its safety.

The method of increasing testicular temperature principally studied was that of the use of a device lifting the testicles into the suprapubic position for 15-24 hours per day. A partial to total inhibition of spermatogenesis, with alteration of the quantity and quality of the sperm was observed in all studies except one. The reversibility of this inhibition was satisfactory at the end of the temperature exposure. The contraceptive effectiveness was studied by 3 papers, for a combined period of 512 months, with no pregnancies for any of the couples having been using TMC without interruption. The maximum length of time that this contraception was used was 47 months. No serious side-effects were reported by any of the men studied. The anomalies observed in the nuclei of the sperm during the treatment were reversible by the end.

The published data confirm the contraceptive effectiveness of TMC by the use of a device which lifts the testicles into the suprapubic position. Larger scale studies are necessary to test these results in the general public. The commercialisation as a medical device and wider-reaching marketing are necessary to increase accessibility of use. Training of frontline healthcare professionals (GP's, midwives) as well as their inclusion in larger scale studies would help greatly with the spread of TMC.

**2020 Pourchasse**

### **Opinion and perception of women about male contraception**

Contraception is part of general practitioner's activities, and is most of the time endorsed by women. Many studies talk about men's desire to control their fertility and play a role in contraception. Current existing male methods approved by the WHO are male condom and vasectomy. Two other methods are suggested in some French centers, remaining out of "AMM": the hormonal method by regular intramuscular injection and the thermal method moving back up testicles to human body temperature. Goal : Determine the percentage of favorable opinion for current male means of contraception (main outcome criteria). Make an assessment of women's knowledge and practices regarding male contraception and determine the potential influencing factors (secondary criteria). Methods : Observational quantitative cross-sectional study through self-questionnaire for women aged 16 until menopause. Descriptive statistical analysis using Excel software and bivariate analysis using R software. Results : 379 interpretable answers were included. 69.66% of women would like to let men manage contraception, without referring to a specific method. Only 46.70% of them were in favor of existing male contraception after explaining available means (main outcome criteria). A majority of women considered that contraception was not a burden in their daily life. The most acceptable method for a majority of women was a male pill, which is still in progress. Conclusion : Women would like to let men manage contraception, but the current contraceptive methods offered do not convince them. It will be interesting to think about developing of new, and less invasive methods. Thus contraception will be available for all, taking into account freedom of choice and controlling fertility.

2020 Amory

## Development of Novel Male Contraceptives

Unintended pregnancy is surprisingly common, accounting for 40-50% of pregnancies worldwide. Contraception is the most effective means of preventing unintended pregnancy. Seventy percent of all contraceptives are used by women; however, some women are unable to use contraceptives due to health conditions or side effects. Many men wish to take a more active role family planning, but currently have only two effective male contraceptive options, condoms and vasectomy. Therefore, work to develop novel male contraceptives analogous to popular female methods, such as daily pills or long-acting shots and implants, is underway. This paper will briefly discuss the pros and cons of condoms and vasectomies, and then review the research into novel methods of male contraception.

2020 Amory

### 1. The need for a new ethical framework for assessing risks and benefits in novel male contraception

Novel male contraception has the potential to enhance reproductive autonomy for men [1,2-4] and offer greater equity in contraceptive responsibility for monogamous or non-monogamous heterosexual relationships [1]. However, novel male contraceptives have been in development for decades, with no method able to reach the market to-date. Technical challenges inherent in the development of novel reversible male contraceptives have been detailed in other publications [5,6]. The negative impact of gender bias in this setting has also been explored [1]. Moreover, medicolegal issues have presented enormous challenges in female contraception development, leading to the discontinuation of some approved products. Similar concerns are likely to affect the development of novel male contraception, which is thus far unexplored and will require further analysis. For our purposes here, we will focus on one of the key ethical challenges in this domain. How ought medical professionals and researchers assess the balance of nonmaleficence (do no harm or avoid risks) and beneficence (seek the greatest good or benefit) [7], when male contraception has impacts that extend beyond the user of the contraceptive?

The FDA currently offers no ethical guidance about how to assess risks and benefits in the context of male contraceptives [8]. This should not be surprising, given that standard ethical frameworks for weighing these obligations are historically focused on individual patients. Female contraceptives are easily justified according to the standard individual framework: the contraceptive poses small risks to the user in comparison with the substantial benefits of avoiding unplanned pregnancy. While male contraceptives, have not been justified in similar terms, a novel male contraceptive would mitigate a myriad of biopsychosocial risks to the male user and their partner(s), with the substantial and direct benefits of pregnancy prevention in a partner, and avoidance of parenthood and its obligations on the male user and partner. In the United States, every state is required to enact laws that ensure child



support payments from a non-custodial parent until the child achieves majority [9]. Willful failure to pay court ordered child support by a non-custodial, out-of-state parent, can result in federal misdemeanor or felony charges [10]. With female and male contraception options, each partner would have an actual opportunity to control being a parent, and a reason to assume some risk to avoid an unplanned pregnancy.

How risks and benefits should be assessed for individual contraceptive users in the context of interdependent relationships is ethically complex, but also a known process in other areas of healthcare. Public health ethics considers interdependent societal relationships and justifies small harms to one individual for the purpose of securing substantial benefits to the individual and broader public, such as vaccinations [11]. However, this framework does not justify the risk of a male contraceptive, which may pose uncertain and possibly substantial risks to men [12], while offering significant benefit to women and men alike. Similarly, living organ donation utilizes a risk-benefit model that justifies substantial health risks to an individual in order to benefit the health of another, but key differences prevent application in this context. Living organ donation is considered an extreme form of altruism because donors typically do not hold responsibility for the underlying medical condition of the recipient [13], which cannot account for dyadic responsibility in contraception. Additionally, the possibility of living organ donation arises in a setting in which few if any medical alternatives exist [13]. In contrast, there are effective medical alternatives to novel male contraception: female contraceptives and traditional male contraceptives. Nevertheless, relying on those alternatives fails to acknowledge men's desire for greater reproductive autonomy [1,2-4], the adverse effects experienced by women using novel female contraceptives [1], and the need for a more equitable distribution of risks and benefits in contraception.

## **2. "Shared risk: A novel ethical framework for male contraception"**

The ethical obligations in the context of male contraceptives are fundamentally relational. Though women take on some of the greatest risks of unintended pregnancy, men face a corresponding set of risks [14] and need for support in family planning [15]. Given these complexities, we suggest a new framework for understanding the risks of male contraception that accounts for the interdependent nature of family planning.

Ethically, this shift can be grounded in care ethics, which conceptualizes humans as unassailably interdependent and interconnected [16]. Conceptualizing risk to one sexual partner is inextricably linked to the risks of another. We call this "shared risk." Shared risk is defined as the sum of the risks to both members of a sexual dyad associated with contraceptive use by either or both members, and is compared to the risk of unintended pregnancy to the dyad as a whole. This is justifiable because although modes of family planning differ within any type of sexual pairing, in the context of contraception, the shared responsibility remains the same for each partner, and risk calculations should take this into account. This lowering of the overall risk to a couple is especially important when the risk of health complications from unintended pregnancy are considered, most of which accrue to the female member of the couple.

For example, consider a sexual partnership that primarily relies on a combined hormonal contraceptive. If the risk of death from thromboembolism associated with the use of a

combined hormonal contraceptive is 7.5 deaths in one million users-years [17,18], then the risk of death from thromboembolism to either individual would be 7.5 deaths in one million sexual dyads (effectively two million person years). Using this paradigm of “shared risk,” if the risk of death from use of a novel male contraceptive were less than 7.5 deaths per one million user-years, the “shared risk” would actually be lower than the shared risk where the female partner used a combined hormonal contraceptive. If the risk of death from a long-acting male contraceptive were as low as one in ten million, the risk of death from contraception or pregnancy that accrued to the dyad from contraception would be reduced by 99%. Such a male contraceptive, even one associated with a low but non-zero risk of death, would seem to be strongly favored from a “shared risk” perspective over the use of a combined hormonal contraceptive in a couple desiring to prevent an unintended pregnancy (see Fig. 1).

Though these examples are simplistic, they offer a basic framework for drawing together different risks accrued to monogamous and non-monogamous relationships in the context of contraception. Applying this framework will require more knowledge about particular relationships to better assess the diversity of risks that should be considered. For instance, do both partners plan to continue using individual contraceptives? Some risks may be difficult to quantify (e.g. social costs) and others may be easy to quantify (e.g. risk of death from unintended pregnancy or failure rates of different contraceptive methods), but all should be incorporated in the risk-benefit analysis. Another limitation of this model is that it is based largely on the risks of current contraceptive use, consisting mostly of risk of death from unintended pregnancy and thromboembolism in women, and doesn't include detailed consideration of potential long-term risks and benefits of a male contraceptive, which may take years to fully appreciate. In addition, as the use of long-acting reversible contraceptives with much lower risk of serious adverse effects becomes more common [19, 20], the acceptable risk level for male contraceptive may decrease as well. Nevertheless, a case can be made that use of a male contraceptive, even one associated with a very small risk of serious side effects and even death, is justifiable in a risk-benefit analysis as long as the overall risk to a given couple, the “shared risk,” is at or below the risk of currently available combined hormonal contraceptives or unintended pregnancy.

Much work remains in order to develop a more robust understanding of this ethical framework for risk, how it should apply in particular cases, and how it should be balanced against other ethical considerations, such as respect for autonomy. For instance, could this framework affect the authority of women in reproductive decision making? Or, how would it apply differently to monogamous and non-monogamous relationships? And, how ought other risks and benefits be integrated that may be more difficult to quantify, such as mental health risks? Ultimately, we hope this skeletal framework of “shared risk” provides a starting point for more robustly addressing the inequities in risk and shared responsibility and autonomy in contraception.

## 2020 Constans

### **Opinion survey on male contraception: the acceptability of new types of contraception**

**Background:** Contraception is a global health issue. Very few studies have focussed on male contraception or investigated the opinions on and acceptability of new methods, while clinical trials have been conducted for several decades.

**Methods:** The two objectives of the study were to gather the opinions of men and women concerning not only the development of new methods of male contraception, but also concerning the current methods. A qualitative study was conducted in a medical school and an independent midwife's surgery in Auvergne-Rhône-Alpes. Semi-structured interviews were conducted with five women and five men.

**Results:** Respondents show mixed opinions and a lack of knowledge about current male contraceptive methods. They are in favour of the development of new male contraceptives, but feel that there is insufficient communication on this subject and fear the potential adverse effects.

**Discussion:** Specific psychosocial factors surround male contraception and provoke fears of a breach of masculinity in all its dimensions. The subject of male contraception is also linked to the issue of female sexual and contraceptive burden.

**Conclusion:** Major obstacles hamper the rise of male contraception, both because of the actors involved in its development and the population. Improved communication and further acceptability studies are needed.

## 2019 Vanhakendover

### **Socio-Technical Transitions and Intermediaries: Lessons From the Gender Gap in Contraception for Future Inclusive Treatments**

#### **How can networks of intermediaries reinforce their potential in scaling up inclusive solutions and stimulating socio-technical transitions?**

Why are cars fuelled and not electricized? Why did fuel cars win over electric cars? Why do we use plastic bottles for water rather than in cans that are 100% recyclable? Why are governments still dependent on nuclear energy and not wind power? Why do women bear the heavy burden of contraception when other ways exist? How can sustainable and/or inclusive solutions replace their unsustainable and/or unbalanced alternatives and replace the dominant system? Sometimes it can look like this is a world of possibilities in the form of low-hanging fruit, but that they often remain just that: possibilities.

Niche projects and innovations are sprouting up all around Europe. Yet, these projects do not always get to a stage where they can be expanded to a greater scale. There is an

identifiable systemic policy failure where inclusive and/or sustainable innovations already do exist all around Europe, and are supported in different localities but are not scaled up. The end result paints a discouraging picture where Europe is composed of a plethora of pilot projects but they never acquire enough strength and the overwhelming support they need to scale up and disrupt the socio-technical system in place, or in political terms the status quo. How does an isolated idea in an isolated niche become mainstream?

The objective is clear: transitioning from existing unsustainable and unequal socio-technical regimes implementing sub-optimal solutions to sustainable and inclusive ones. This research will focus on inclusive socio-technical transitions, where the literature is lacking, rather than sustainable socio-technical transitions, which already has a considerable amount of research behind it. It will not concentrate on the validity of the projects but rather on the innovative processes, the networks and actors involved in it, their challenges, their opportunities, as well as a solution to answer the following question: How can networks of intermediaries optimise their role in scaling up inclusive solutions to implement socio-technical transitions?

## **2019 Stevelinck**

### **« Contraception : where are the men ? An essay on a shared responsibility - the example of Thomas Bouloù »**

Today, women are principally in charge of contraception, should it be technically, financially or mentally, while men don't share, or share very little of this responsibility. While respecting the right of women to do as they wish with their bodies, this study aims to question the obstacles to the development and use of male contraception and also to demonstrate, through the example of the Thomas Bouloù group, that these can be overcome.

## **2019 Granger**

### **Male hormonal contraception : validated methods and new therapeutic approaches**

#### **Introduction**

Despite men's proven interest in contraception, women still predominantly shoulder that burden.

#### **Objectives**

Assess the panel of validated methods of contraception and list the new therapeutic approaches.

#### **Research method**

In this systematic review, we searched the computerised databases PubMed, Cochrane Library and Web Of Science from 04/07/2001 to 01/04/2019. We included systematic reviews, randomised and non-randomised clinical trials, and guidelines.

Results : 25 references met our inclusion criteria, and have been analysed. There are three validated methods, which are male condoms, withdrawal and vasectomy, recognized in France as a permanent method of contraception since July 4th 2001. New possibilities gather intra vas devices and hormonal contraception, mostly androgen and progestin associations.

#### **Conclusion**

No new validated techniques have been identified. Medical research complexity makes the realisation of new techniques difficult to attain, despite the many options under study.

## 2019 Campbell

### Fertility Intentions and Perspectives on Contraceptive Involvement Among Low-Income Men Aged 25 to 55

**CONTEXT:** Unintended pregnancy is disproportionately reported by low-income individuals in the United States, and studies of men's roles in preventing pregnancy have largely focused on adolescents and young adults. Less is known about the pregnancy-related attitudes and behaviors among men older than 24, who are involved in the majority of pregnancies ending in a birth.

**METHODS:** Between December 2015 and August 2016, in-depth interviews were conducted with 26 low-income men in Alabama who were aged 25–55, were sexually active and did not want more children. Interviews explored men's reasons for not wanting more children, their contraceptive knowledge and attitudes, and their involvement in contraceptive decision making. Transcripts were examined using content analysis to identify themes related to men's perspectives about preventing pregnancy and using contraceptives.

**RESULTS:** *Participants' motivations to prevent a pregnancy centered primarily on their age and financial circumstances. Most men had limited contraceptive knowledge and perceived their risk of causing a pregnancy to be low, regardless of method use. Few men engaged in decisions about contraceptive use, despite their beliefs that men and women had a shared responsibility to prevent pregnancy. Although some men were interested in vasectomy, a few were hesitant about undergoing the procedure because they might want to have children later if their life circumstances changed, and others worried that vasectomy might affect sexual performance.*

**CONCLUSIONS:** Some low-income adult men were uncertain about their pregnancy desires, and many lacked contraceptive knowledge that would help them avoid unwanted pregnancy. Research is needed to identify the types of programs that could effectively promote men's constructive engagement in preventing pregnancies over their reproductive life course.

## **2018 Brot**

### **Men's awareness of male contraception : a descriptive cross-sectional study of 145 men**

Introduction : Contraception is a major public health concern. Contraception must be adapted to the way of life of couples in order to be used in an optimal fashion. We examined the role of men in contraception.

Tools and method : This is a descriptive, cross-sectional multicentric study by questionnaire of a male population aged between 18 and 65, carried out in a doctor's office and through social media.

Results/ discussion : The men said that they felt concerned by contraception but that they discussed it very little with their partners and participated very little in the choice of method. They have good awareness of the male condom but the other methods remain little known. They do not have knowledge about vasectomy, unlike the Anglo-Saxons who practise it widely. Regarding a potential male hormonal pill, the men were ambivalent. They said that they were interested but that they were not ready to take it.

Conclusion : The men are perhaps ready to invest themselves in their contraception, and to assume more responsibility for their fertility with a male contraceptive method. However, are women ready to cede this responsibility to men ?

**2018 Amouroux**

**Are men ready to use thermal male contraception? Acceptability in two French populations: New fathers and new providers**

**Background**

Since the 1970s, international research has actively pursued hormonal male contraception (HMC) and, to a lesser extent, thermal male contraception (TMC). Although the efficacy of TMC has been confirmed in limited populations, its acceptability has not been studied in either potential users or potential prescribers.

**Methods**

A cross-sectional descriptive multicentre study of potential male users of TMC (new fathers) and potential prescribers of TMC (new providers) was conducted between November 2016 and February 2017. The participants completed a 3-part survey, and their responses were evaluated to i) determine their socio-demographic profiles; ii) identify personal experiences with contraception; and iii) gauge the participants' knowledge, interest and preference for male contraception, particularly TMC. For new providers only, the survey included a fourth part to evaluate professional experience with male contraception.

**Results**

The participation rate was 51% for new fathers (305 NFs) and 34% for new providers (300 NPs, including 97 men (male new providers, MNPs) and 203 women (female new providers, FNPs)). Only 3% of Nfs and 15% of NPs knew about TMC (including 26% of the MNPs and 10% of the FNPs,  $p < 0.01$ ). After reading information on TMC, new fathers were significantly less willing to try TMC (29%) than were new providers (40%) ( $p < 0.01$ ). The 3 main advantages of TMC for the new fathers included the following factors: "natural" (52%), "without side effects" (38%) and "non-hormonal" (36%). The main disadvantages were "lengthy wear time" (56%), "daily undergarment wear" (43%) and "concern about possible discomfort" (39%).

**Conclusions**

Young male and female providers have limited knowledge of male contraception, are interested in further information and would generally prescribe TMC to their patients. Successful expansion of the use of male contraception, including TMC, would require distribution of better information to potential users and providers.



**2018 James Hawkins**

**Conflicting contraceptive norms for men: equal responsibility versus women's bodily autonomy**

Most research investigating how men and women in heterosexual relationships negotiate contraceptive use focuses on the women's point of view. Using a sample of 44 interviews with men attending a western US university, this study examines norms governing men's participation in contraceptive use and pregnancy prevention and their responses to those norms. The paper demonstrates how competing norms around sexual health decision-making and women's bodily autonomy contribute to unintended outcomes that undermine young people's quest for egalitarian sexual relationships. While men largely agree that responsibility for sexual health decision-making should be shared with women, they also believe that women should have power over their own bodies and sexual health. However, the coexistence of these two competing norms – which call for both equal responsibility in decision-making and women's bodily autonomy – results in a disconnect between men saying that sexual health decision-making should be equal, but not always participating equally. Thus, men largely give contraceptive decision-making power over to women, putting the burden of pregnancy prevention onto women and letting men off the hook. It is concluded that men's negotiation of these competing norms reinforces unequal power and inequality in sexual relationships.

## Recent Developments in Male Contraception

Unplanned pregnancies are an ongoing global burden, posing health and economic risks for women, children, and families. Advances in male contraception have been historically stymied by concerning failure rates, problematic side effects, and perceived market limitations. However, increased interest in reliable and reversible options for male contraception have resulted in resurgent efforts to introduce novel contraceptives for men. Hormonal male contraception relies on exogenous androgens and progestogens that suppress gonadotropin production, thereby suppressing testicular testosterone and sperm production. In many men, effective suppression of spermatogenesis can be achieved by androgen-progestin combination therapy. Small-scale contraceptive efficacy studies in couples have demonstrated effectiveness and reversibility with male hormonal methods, but side effects related to mood, sexual desire and cholesterol remain concerning. A number of novel androgens have reached clinical testing as potential contraceptive agents; many of these have both androgenic and progestogenic action in a single, modified steroid, thereby holding promise as single-agent contraceptives. Currently, these novel steroids hold promise as both a “male pill” and long-acting injections. Among non-hormonal methods, studies of reversible vaso-occlusive methods (polymers that block transport of sperm through the vas deferens) are ongoing, but reliable reversibility and long-term safety in men have not been established. Proteins involved in sperm maturation and motility are attractive targets, but to date both specificity and biologic redundancy have been challenges for drug development. In this review, we aim to summarize landmark studies on male contraception, highlight the most recent advances and future development in this important field of public health and medicine.

**2018 Vernier**

**"Male Contraception: A Man's Business? A Prospective Unicentric Quantitative Study at the Catholic University of Lille**

Male contraception today is limited to three methods: the condom, vasectomy, and withdrawal. These limited options stand in contrast to the diverse array of contraceptive methods available for women.

To this day, contraception is largely considered a female prerogative. The condom, withdrawal, and vasectomy are the only existing male contraceptive methods. Research on new medical methods has been underway since 1979 in France but no results have yet come to fruition. Nevertheless, there is a demand from men. Discussing male contraception brings up underlying issues: a disrespect of the natural order, endangering bodily integrity, and disturbing the social balance. But are men well-informed about existing male contraceptive methods? What are their perceptions of them? Are they ready to take on a more active role and assert themselves in the field of contraception?

This prospective unicentric quantitative study was conducted among men in eight faculties of the ICL between December 5, 2017, and January 31, 2018, using a questionnaire distributed on a secure platform. 122 men were included in the study.

Most are students with an average age of 20. 45% of the respondents feel sufficiently informed about male contraception.

However, their knowledge on the subject seems insufficient.

Most men have a positive representation of male contraception despite expressed concerns about side effects; 48% believe it affects libido and 32% suppose it is harmful to health. In addition, 31% believe contraception remains a female concern.

Most of the respondents are not aware of ongoing research on male contraception but 93% find it justified. 69% would not adhere to a new hormonal contraceptive method. Several motivations for possibly using a contraceptive method emerge: to become more involved in the couple's contraception, to control their own contraception, and to use it in case of contraindications of the partner.

Awareness raised by health professionals and relayed by the media could spark reflection on male contraception. A more appropriate response from the interested parties could be obtained after the publication of concrete results from studies in the field."

2018 Nguyen

## **Access to male sexual and reproductive health services in publicly funded California clinics in 2018**

**Objectives:** To characterize the sexual and reproductive health (SRH) services available to men from publicly funded family planning clinics in California.

**Study Design:** We conducted a cross-sectional telephone survey in 2018 to compare the accessibility of SRH services for male clients at Planned Parenthood clinics in California to those visiting a random sample of 200 other publicly funded family planning clinics, selected from a California Department of Health Care Services list of 773 that had served at least 15 male clients in the prior year. A representative at each clinic answered questions about provision of 20 clinical services. We examined differences in individual service provision by clinic affiliation using  $\chi^2$  tests.

**Results:** Only one-third (773/2348) of publicly funded clinics in California served more than 15 male clients each year, with rural clinics less likely than urban counties to do so. We were able to contact 62 of 107 Planned Parenthood clinics and 81 of the 200 other publicly-funded family planning clinics that we attempted to reach. Most (95%) offered HIV and STI screening; 65% offered vasectomy consultation, but only 5% provided vasectomy services. Planned Parenthood clinics were more likely than other publicly funded clinics to provide condom demonstrations, emergency contraception, STI testing, HPV vaccination, penile/testicular exams, and infertility testing ( $p < 0.05$  for all comparisons).

**Conclusions:** Male family planning services are less frequently offered by rural clinics and by publicly funded clinics in California that are not affiliated with Planned Parenthood.

**Implications:** Men's underutilization of family planning may be partially explained by a lack of access to clinical services.

**2017 Soufir**

**Hormonal, chemical and thermal inhibition of spermatogenesis: the contribution of French teams to international data with the aim of developing male contraception in France**

Since the 1970s, international research on male contraception has been actively pursued. Hormonal and nonhormonal methods (thermal, chemical) have been tested, leading to clinical trials of interest to thousands of men and couples.

The results showed that it was possible to develop methods of male contraception that inhibited spermatogenesis with good contraceptive efficacy. However, their side effects (mainly loss of libido), poorly accepted modes of administration, and the high frequency of poor responders prevented their widespread use. Based on earlier initiatives, new avenues were explored and significant progress was achieved, allowing the reasoned use of male contraception. For 40 years, several French teams have played an important role in this research. The aim of this paper is to outline the history and the progress of the experimental and clinical work of these teams, which addressed hormonal, chemical and thermal approaches to male contraception. These approaches have led to a better comprehension of spermatogenesis that could be useful in fields other than male contraception, such as the effects of toxic compounds and fertility preservation.

**2017 Hardee**

**Are men well served by family planning programs ?**

Although the range of contraceptives includes methods for men, namely condoms, vasectomy and withdrawal that men use directly, and the Standard Days Method (SDM) that requires their participation, family planning programming has primarily focused on women. What is known about reaching men as contraceptive users? This paper draws from a review of 47 interventions that reached men and proposes 10 key considerations for strengthening programming for men as contraceptive users. A review of programming shows that men and boys are not particularly well served by programs. Most programs operate from the perspective that women are contraceptive users and that men should support their partners, with insufficient attention to reaching men as contraceptive users in their own right. The notion that family planning is women's business only is outdated. There is sufficient evidence demonstrating men's desire for information and services, as well as men's positive response to existing programming to warrant further programming for men as FP users. The key considerations focus on getting information and services where men and boys need it; addressing gender norms that affect men's attitudes and use while respecting women's autonomy; reaching adolescent boys; including men as users in policies and guidelines; scaling up successful programming; filling gaps with implementation research and monitoring & evaluation; and creating more contraceptive options for men.