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The Male Contraception Quarterly

Do men want new contraceptive options? Do women? Initial results from an ongoing survey

While few question the market demand for more convenient and effective methods of contraception – one has only to consider the one-year attrition rate of existing contraceptives to see why – there is a pervasive doubt at the policy level that new contraceptives specifically for men are in demand.

But we hear from men around the world every day, asking where and when they can have access to the emerging contraceptive methods. Further, nearly a dozen small studies and one large-scale sociological study of 9,342 men have shown widespread acceptance of a male hormonal contraceptive across sociocultural spectra (1-11).

To contribute further to the growing information on demand for novel male contraceptives, in September 2006 the Male Contraception Coalition began collecting market survey data from visitors to its web site. A sample of the first quarter's results are reported herein. In the last quarter of 2006, 734 men and women participated in the survey.

(Raw data from the survey are available for additional analysis. For further information, contact survey@malecontraceptives.org.)

Men's results

- **Men want new contraceptive choices:** 66% gave an unequivocal “Yes”. The remaining 33% said they want a particular new male contraceptive.

- The majority of respondents selected a **nonhormonal systemic drug** as their preferred mechanism of action (60% selected it as their 1st or 2nd choice). A hormonal systemic drug was the next most favored mechanism of action (41% selected it as their 1st or 2nd choice). See Table 1.

- The majority of respondents selected a yearly injection as their preferred method of delivery for a systemic drug (41%). Overall, **injections were the most popular mode of delivery**. Opinion was very divided on the desirability of a daily pill and implants; nearly equal numbers of respondents ranked them their two highest or two lowest choices. A topical gel or cream applied daily was

Table 1. Which of the emerging male contraceptives is most appealing to men?

Preferred mechanism of action	1st choice	2nd choice	3rd choice	4th choice	5th choice	6th choice
Systemic nonhormonal drug	34.0%	25.9%	13.1%	10.0%	10.5%	6.5%
Vas deferens implant	19.4%	8.9%	18.3%	24.6%	11.6%	17.2%
Systemic hormonal drug	18.3%	22.9%	17.4%	13.7%	8.1%	19.6%
Systemic immunization	12.2%	20.0%	32.3%	19.2%	8.0%	8.3%
Modified brief-style underwear	9.8%	8.3%	10.2%	13.5%	22.6%	35.7%
Local application of heat	6.3%	14.0%	8.7%	19.0%	39.2%	12.7%

overwhelmingly the least popular method of delivery. See Table 2.

- The overwhelming majority of men said they would visit a doctor in order to get a new male contraceptive (96%).
- Over two thirds reported that they make a decision about what type of contraception to use with their sexual partners (68.02%).
- The most commonly cited reasons for quitting contraceptive use were side effects (43%) and inconvenience (37%). Men’s and women’s reporting of reasons for quitting were the same. See Table 3.

- Almost two thirds characterized their desire for new male contraceptives as motivated by their wish to have more personal control over their fertility (59%).

- A summary of the demographics of the male respondents:

- 79% are twenty- to thirty-something in age

- 80% have not yet started a family

- Nearly half of the men characterized themselves as in committed non-marital relationships (47%), a quarter as married (24%) and a quarter as single or dating (18% and 11%, respectively).

- 74% reside in the United States (400), 6% reside in each the UK and Canada (31 each), and 4% in Australia (23); the remaining 10% of respondents live in countries on every continent (56).

Table 2. Which contraceptive delivery method is most appealing to men?

Preferred delivery method	1st choice	2nd choice	3rd choice	4th choice	5th choice
Daily pill	29.6%	14.0%	12.2%	23.1%	21.1%
Yearly injection	41.4%	16.8%	14.6%	13.0%	14.2%
Biannual implant	9.6%	29.8%	20.5%	17.2%	22.9%
Quarterly injection	11.5%	20.7%	43.1%	15.3%	9.4%
Daily gel or cream	7.9%	18.7%	9.6%	31.4%	32.4%

Women’s results

- 70% of female respondents said their male partners have already expressed interest in using new male contraceptive methods. 94% said they would encourage their partners to use one or more of the male contraceptives currently in the development pipeline.

- The majority of women reported that they trust their partners to use male contraceptives reliably, even if the method required daily effort (76%). Fewer than a quarter reserved their trust for the use of a method requiring quarterly or one-time effort. See Table 4.

- One quarter of women reported that they would continue using other methods of contraception even if their sexual partner were using a highly-effective new male contraceptive. Half said their contraceptive use would depend on the efficacy of the new male contraceptive. See Table 5.

- A summary of the demographics of the female respondents:

- 79% are twenty-to thirty-somethings

- 79% have not yet started a family

- Nearly two-thirds of the women characterized themselves as in committed non-marital relationships (62%), a fifth as married (22%), and a sixth as single or dating (9% and 7%, respectively).

- 78% reside in the United States (151), 8% reside in Canada (15), 5% in the UK (10); the remaining 9% of respondents live in European, Asian and Caribbean countries (17).



Table 3. Why do couples quit existing methods?

Reasons for quitting the use of existing contraceptives	Percent*
Unpleasant side effects	43.2%
Inconvenience	36.9%
Health risks	20.0%
Not effective enough	13.5%
Other reasons	9.9%
Too expensive	8.2%
Wanted to become pregnant	5.4%
No longer available / Removed from the market	1.5%
(Not applicable)	25.5%

*Percentages do not sum to 100 because respondents could choose multiple responses.

Table 4. Do women trust men to use new male contraceptives?

Trust in male partner’s ability to use contraception reliably	Percent
Yes, even when daily effort is required	75.6%
Yes, if effort is required every few months	20.7%
Yes, but only if a one-time effort is required	1.6%
No	2.1%

Table 5. How likely are couples to both use a contraceptive?

Woman will continue using female contraception	Percent
Yes	23.3%
Yes, depending on how effective the male contraceptive method is	51.8%
Uncertain	6.2%
No	18.7%

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For your agenda

The National Institute of Child Health and Human Development, the University of Washington's Center for Research in Reproduction and Contraception, and CONRAD have announced the 2nd Future of Male Contraception conference. The conference will be held September 27-28 in Seattle, Washington.

The conference will bring together investigators working in university, research center and pharmaceutical settings, as well as regulatory experts, sociologists and male reproductive health care specialists. Topics to be covered include progress on new targets for male contraception (from spermatogenesis targets to activation and binding

targets), clinical trials, hormonal male contraception, translational research from target identification to clinical application, hurdles to product development, and recommendations for future research.

The two day conference will feature short presentations on clinical research and an evening poster session. In order to maximize the meeting's information-sharing potential, presenters are asked to describe their latest work but are not expected to prepare a formal publication.

For further information, see the conference web site:

FutureOfMaleContraception.com.

Letters from would-be customers

The men and women who responded to the survey were also given the opportunity to explain why they support the development of new male contraceptives. 584 of them chose to do so.

Dear Sir or Madam:

I believe we need new contraceptives because existing contraceptives aren't good enough – some aren't very effective, some have unpleasant side effects, and some are inconvenient. Nearly half of women starting a new contraceptive method will stop using it within one year due to dissatisfaction.

I believe that the male contraceptive market in particular is underserved. This is not due to lack of consumer interest, but outdated stereotypes and naïve myths. Women already trust their partners to use male contraceptives: In the United States, 1 in 5 men older than 35 has had a vasectomy, and up to one third of young couples rely on condoms. And men are ready for new contraceptive choices: Multiple sociological surveys have shown that men are willing to try new contraceptive options.

What further evidence do government and industry need to convince them that there is an untapped male contraception market? Researchers around the world have promising male contraceptive products in various stages of development. What is needed now is a commitment from policymakers and funders to bring these products to market.

Sincerely,
[signed below]

Signatories:

Amanda Bryant, Australia
Tim Buckner, Australia
Daniel Caldwell, Australia
Alex Campbell, Australia
Adam Chadwick, Australia
Simon Clover, Australia
Aron Crowhurst, Australia
Alex Dunmow, Australia
Jason Henry, Australia
Josephine Hitchcock, Australia
Lucy Lowe, Australia
Steve O'Donald, Australia
Jonathan Palmer, Australia
Mitchell Thornhill, Australia
Chad Whitehead, Australia
Michelle, Australia
Nicola, Australia
Gordon, Australia
Steve, Australia
Nev, Australia

Kate, Australia
Joel, Australia
John, Australia
Justin, Australia
Chris, Australia
John, Australia
Paul Ringler, Austria
Niels Janssens, Belgium
Bhaktal Pashaass, Bhutan
Iuri Chaer, Brazil
J. Baker, Canada
Kat Caicco, Canada
Jean-Francois Couillard, Canada
John D., Canada
Kareem Davis, Canada
Anna Downing, Canada
Vincent Ducamp, Canada
Tricia Fleming, Canada
Sacha Fleury, Canada
Aaron Harley, Canada

Andrew Herrmann, Canada
M. J., Canada
H. Kalomiris, Canada
Holly Kent-Chrishop, Canada
Peter Kitchen, Canada
Tyler Lowden, Canada
Nicholas Morel, Canada
James Rogers, Canada
K. S., Canada
Aaron Smith, Canada
Jill Strom, Canada
J. W., Canada
Meghan Waitt, Canada
Michael Watcher, Canada
Matthew Weber, Canada
Carly Young, Canada
Don, Canada
Stephen, Canada
Brian, Canada
Aja, Canada

“ I am tired of the fear of conceiving a child before I can financially support one! I do not want my girlfriend to suffer an abortion if a pregnancy does occur! She cannot withstand the side effects of the pill and we find spermicides cause her to suffer urinary tract infections! All of my male friends talk seriously about using male contraception because we all want control of our own futures and feel that our only protection against pregnancy is abstinence - this is completely undesirable. Please make sure these new options for male contraception get on the Canadian market! Please do this! ”

- J. U., Canada

Geoff, Canada
Beth, Canada
Marcus, Canada
Jared, Canada
Young, Canada
Trevor, Canada
Goran, Croatia
Morten Sigsgaard, Denmark
Linda, Denmark
Steve, Estonia
Paul Cibulka, France
Sarah Bollendorff, Germany
John Milbank, Germany
Razvan Petre, Germany
Calvyn, Germany
Ulf, Germany
Jameel Ahmed, India
Suresh Bopparaju, India
David Kirmayer, Israel
David, Israel
Ugo Vaccalluzzo, Italy
Chris Marou, Japan
Lee Chung Lern, Malaysia

Rafa Macias, Mexico
David Suarez, Mexico
Ronnie Berntsson, Netherlands
Wendy De Heer, Netherlands
Marco Van Der Bijl, Netherlands
Remi, Netherlands
Paul Burrowes, New Zealand
Conan, New Zealand
Vegard Olsen, Norway
L. A., Philippines
David Paine, Philippines
Olga, Philippines
Łukasz Pawelec, Poland
Miguel Negrao, Portugal
Humberto Toval, Puerto Rico
Alex Grafsky, Russia
Stanislav Reznikov, Russia
Moazzam, Saudi Arabia
Simon Ang, Singapore
Vernon, Singapore
Anton, South Africa
Robert Skæld, Sweden
Eva, Sweden
Nicolas, Switzerland
Kari, Switzerland
Thawatchai Insee, Thailand
Christopher Brind, UK
Stephen Brough, UK
Jonathan Cruise, UK
Michael Cutler, UK
Chris Dawsib, UK
Seumas Dunlop, UK
Rebecca Green, UK
Vince Hall, UK
Juan Herrada, UK
Andrea Hosker, UK
Terry Hukin, UK
A. J., UK
Emily John, UK
Adam Knight, UK
Rob Lawton, UK
Neil Millard, UK
Gordon Mitchell, UK
Ryan Mohammed, UK
Carl Mountain, UK
Charles Rawlinson, UK
Amy Sloan, UK
Vincent Talleu, UK
Peter Unwin, UK
Steve, UK
Craig, UK
Ilana, UK

Amy, UK
Ian, UK
Jon, UK
Ben, UK
Cyrus, UK
Amber Fontaine, AK, USA
Brierley Ostrander, AK, USA
Matthew Rogers, AK, USA
Zachary Stocks, AK, USA
Eric C. Walla, AK, USA
Kassandra Braun, AL, USA
Matthew Burnett, AL, USA
Jason Gillespie, AL, USA
Paula Hamilton, AL, USA
David Hutcheson, AL, USA
Juliana Johnson, AL, USA
Christopher Lang, AL, USA
Lincoln Mcgrath, AL, USA
John Pruitt, AL, USA
Shaun Richard, AL, USA
Brandon Robertson, AL, USA
Sylvia Sabala, AL, USA
Will, AL, USA
Caryn, AL, USA
Dan, AL, USA
Lisa, AL, USA
Joseph, AL, USA
Adam, AL, USA
Kim, AL, USA
Trista Perry, AZ, USA
Carlos Rivera, AZ, USA

“ I am 21 years old and sexually active. My girlfriend and I live in fear of contraceptive failure to the point where it can affect our quality of life... This isn't just a report of a trend in society - this is a customer begging for an option! I hope you take this message seriously, and thank you for your time. ”

- Nathan Britton, HI, USA

Rick, AZ, USA
Marcus, AZ, USA
Marios, AZ, USA
Jason, AZ, USA
Michelle Ashton, CA, USA
August Banks, CA, USA
Laura Batista, CA, USA
Joanne Belisle, CA, USA
David Braun, CA, USA
Chad Cottle, CA, USA
Jamie Davis, CA, USA
Nils Devine, CA, USA
Evan Dorn, CA, USA
Oliver Dyla, CA, USA
Robert F., CA, USA
Sa Ha, CA, USA
Krista Hartford, CA, USA
Daniel Jackson, CA, USA
William Jaquette, CA, USA
Elena Kachiguina, CA, USA
James Ledbetter, CA, USA
Jeremy Leslie, CA, USA
Aaron Liebling, CA, USA
Sharon Martin, CA, USA
Mike Mccune, CA, USA
Samuel Mcdonough, CA, USA
Jeff Mcvarish, CA, USA
Spencer Michaels, CA, USA
Joseph Milbury, CA, USA
Carl Morse, CA, USA
Christopher Muypfy, CA, USA
Jared Newton, CA, USA
Jose Perez, CA, USA
Jared Petersen, CA, USA
Timothy Pfafman, CA, USA
Cian Phillips, CA, USA
Pilar Rodarte, CA, USA
Al Romero, CA, USA
Edward Schuck, CA, USA
Melody Thiessen, CA, USA
Mychal Thompson, CA, USA
Nikolas Tkachenko, CA, USA
Mauricio Tripp, CA, USA
Jeff Tsay, CA, USA
Shawn Von Biela, CA, USA
Alex W., CA, USA
Tim Workman, CA, USA
Jim Zorrilla, CA, USA
Deborah, CA, USA
Amy, CA, USA
Richard, CA, USA
Jennifer, CA, USA

Matthew, CA, USA
Brian, CA, USA
Ryan, CA, USA
Nicole, CA, USA
Benjamin, CA, USA
Charles, CA, USA
Josie, CA, USA
Taylor, CA, USA
Charles, CA, USA
Ebony, CA, USA
Alejandro, CA, USA
David, CA, USA
Amy, CA, USA
Kyle, CA, USA
Jonathan Bachelor, CO, USA
Brett Ballard, CO, USA
Chuck Ballou, CO, USA
Gabriela Castorena, CO, USA
Charles Freeman, CO, USA
Kristi Holmes, CO, USA
Delmer Johnson, CO, USA
Michael Ragan, CO, USA
Nancy Schurr, CO, USA
Kim Smed, CO, USA
Eden Ware, CO, USA
Luke, CO, USA
James, CO, USA
Terri, CO, USA
Justin, CO, USA
Diego Diaz, CT, USA
Jeremiah Josephsen, CT, USA
Christopher Mazur, CT, USA
Weylin Piegorsch, CT, USA
Kjell Wangensteen, CT, USA
Josephine, CT, USA
Shannon, CT, USA
Dawn Macleod, DC, USA
Joseph, DC, USA
Laura, DC, USA
Daniel, DC, USA
George Baraque, FL, USA
Ronald Buig, FL, USA
Chris Cox, FL, USA
George Jimenez, FL, USA
Joseph Mcdaniel, FL, USA
Chris Miller, FL, USA
Seth Moore, FL, USA
Hannah Peterson, FL, USA
Robert Pratt, FL, USA
Hansel Roush, FL, USA
Matt Tucker, FL, USA
Karen, FL, USA

“ Give guys a fall-back option... Personally I would take the “male pill” whether she was on the Pill or not. ”

- Marcus, Canada

John, FL, USA
Justin, FL, USA
Cameron Alme, GA, USA
John Domzalski, GA, USA
Tom Dougherty, GA, USA
Shawn Illeck, GA, USA
Toure Moody, GA, USA
Karmen Pharris, GA, USA
Candy Wigner, GA, USA
Ronald, GA, USA
Nathan Britton, HI, USA
Christopher Richardson, HI, USA
Ann, HI, USA
Kyle Miller, IA, USA
Perry, IA, USA
James, IA, USA
Amie, IA, USA
Jake, IA, USA
Jordan Fence, ID, USA
Jackie Fence, ID, USA
Brandon Glenn, ID, USA

“ The choices for female contraceptives are limited by various individuals' needs. As a female allergic to latex and spermicide, as well as unable to use hormonal birth control, I am limited in my choices, and both my partner and myself want more options for male contraceptives! ”

- Amy, CA, USA

“ All I can say is my personal opinion and situation, and here it is: I personally would be more than happy to see some more male contraceptives (the idea of a shot every few months in particular looks interesting). My fiancée has some medical issues with the pill and similar hormonal methods, and we both fear the risks associated with IUDs and similar devices. So, we currently use condoms. STDs are not really an issue since neither of us has ever had any previous sexual partners nor do we plan to. As such, we would both like to see an alternative to the condom, mostly due to spontaneity (i.e. no condoms on hand, no intercourse and putting it on can sometimes be an interruption) and the fact that we don't need protection from STDs... only the birth control. I am of the opinion that there are many men in my situation who would love the idea, as well as men in many other situations who would find this an ideal solution. I would really like to see some of these newer methods (especially a male shot, non-hormonal preferably but not necessarily) implemented within 2-5 years. ”

- Jared Peterson, CA, USA

Brandon Glenn, ID, USA
Jenna Harrigan, ID, USA
Carly Hoganberg, ID, USA
Logan Holl, ID, USA
Max Karuss, ID, USA
Shawn Miller, ID, USA
Nolan Oder, ID, USA
Brandon Savage, ID, USA
Tyler Beach, IL, USA
Frank C., IL, USA
Ryan Citko, IL, USA
Jeremy Friedman, IL, USA
Brittany Hovland, IL, USA
Roxanne Korpall, IL, USA
Michael Kurowski, IL, USA
Josh Lanw, IL, USA
Nicholas Mccaslin, IL, USA
Michael Mcleary, IL, USA
Tiffany Nichols, IL, USA
Debra Noe, IL, USA
Cassandra S, IL, USA
Jim White, IL, USA
Nickalus Zielinski, IL, USA
Josh, IL, USA
Ray, IL, USA
Don, IL, USA
Neill, IL, USA

Wes, IL, USA
Neill, IL, USA
Carli, IL, USA
Shawna, IL, USA
Kayleigh Chrzan, IN, USA
Glen Ferguson, IN, USA
Paul George, IN, USA
Scott Jones, IN, USA
Chad, IN, USA
Erika, IN, USA
Rachel, IN, USA
Naythan, KS, USA
Rachel Caudel, KY, USA
Kurtis Kerr, KY, USA
Jon Morris, KY, USA
Arron Roberts, KY, USA
Edward Goodwin, LA, USA
Edward Goodwin, LA, USA
Paul Keilers, LA, USA
Turney Lynn, LA, USA
Max Wahoske, LA, USA
Zachary Earle, MA, USA
Daniel Fozzati, MA, USA
Natalie Gallardo, MA, USA
Chris Jones, MA, USA
Phillip Longman, MA, USA
Audrey Schulman, MA, USA

James Wells, MA, USA
Kim, MA, USA
Scott, MA, USA
James Brammer, MD, USA
Kevin, MD, USA
K., MD, USA
Hosung, MD, USA
Phil, MD, USA
Earl, MD, USA
Mike Ashworth, MI, USA
David Brown, MI, USA
Heather Grace, MI, USA
Ryan Kneeshaw, MI, USA
Michael L., MI, USA
Nicholas Lightfoot, MI, USA
Robert Pletcher, MI, USA
Eric Roland, MI, USA
Robb Roza, MI, USA
Matt, MI, USA
Robert, MI, USA
Dave, MI, USA
Ryan, MI, USA
William Buelow, MN, USA
Montanna Ewers, MN, USA
Gabriel Garcia, MN, USA
Matt Herting, MN, USA
Michelle J., MN, USA
Joel Morrison, MN, USA
Drew Peterson, MN, USA
Aaron Wilson, MN, USA
Dave Derwillinger, MO, USA
Randy Harwood, MO, USA
Rachel Katz, MO, USA
Emily M., MO, USA
Matthew K Marchand, MO, USA
Sara Peters, MO, USA
Suzanne Schroedl, MO, USA
Tony Sirna, MO, USA
Jeff Ward, MO, USA
Lance Whelchel, MO, USA
Franklin, MO, USA
Derrick, MO, USA
Jacob Ross, MT, USA
Jacob, MT, USA
Brian, MT, USA
Zachary Coleman, NC, USA
Luke Correll, NC, USA
Megan Crum, NC, USA
David Flowe, NC, USA
Lindsay May, NC, USA
Sarah Mccall, NC, USA
Brian Moffitt, NC, USA

Keesha Powers, NC, USA
Jennifer Schenker, NC, USA
Drew, NC, USA
Lucas Miller, NE, USA
Justin, NE, USA
Jeff Bower, NJ, USA
David Landry, NJ, USA
Michael Miller, NJ, USA
John Ossman, NJ, USA
Charles, NJ, USA
Josiah Norton, NM, USA
Travis Simcox, NM, USA
Katie A., NY, USA
Sol Alcantara, NY, USA
Yanet Alcantara, NY, USA
Tom Bos, NY, USA
Christopher Buman, NY, USA
Micheline Cherveney-Birdsall,
NY, USA
Shelby Cook, NY, USA
Andrew Daniele, NY, USA
Smaranda Ene, NY, USA
Jennifer Gaboury, NY, USA
Justin Guerber, NY, USA
Laura Hollenbeck, NY, USA
Katherine Irby, NY, USA
Vanaja M., NY, USA
Melinda Muller, NY, USA
Rosana Ortega, NY, USA
Steve Pitzrick, NY, USA
Justin Tesch, NY, USA
Jason Thompson, NY, USA
Edward W., NY, USA
Joseph Wielgosz, NY, USA
Leonard Zelig, NY, USA
Alex, NY, USA
Vladimir, NY, USA
Rick, NY, USA
Jazlen, NY, USA
Jose, NY, USA
Erica, NY, USA
Jesse, NY, USA
Jennifer Beach, OH, USA
John Davis, OH, USA
James Michales, OH, USA
Kyle Moyer, OH, USA
David Sabo, OH, USA
Amanda Shingleton, OH, USA
Justin Walker, OH, USA
Michael Wurst, OH, USA
Alive, OH, USA
Ron, OH, USA

“ We desperately need new reliable contraceptives for men... Socially, men need to have a visible and consistent way to take responsibility for their sex lives; moral preaching will never be sufficient without physical and pragmatic methods which parallel those available to women. This is worth more than any individual could imagine. In the short term it will have positive effects on health; in the long term it will have positive effects on finances due to fewer unplanned and unprepared births... Do not be tempted to underestimate the potential positives of this revolutionary new effort. ”

- Melinda Muller, NY, USA

Tyler, OH, USA
Ben, OH, USA
Mark, OH, USA
Allyson Holley, OK, USA
Darrin Priest, OK, USA
Megan Choy, OR, USA
Jared Christian, OR, USA
Julia Crown, OR, USA
Margaret Dalgarno, OR, USA
Ryan Greene, OR, USA
Michael Palmer, OR, USA
Brian Park, OR, USA
James Standley, OR, USA
Napolian Stewart, OR, USA
Sara Wee, OR, USA
Justin Williams, OR, USA
Kristopher, OR, USA
Louis Biancaniello, PA, USA

Nadia Hag Elzaki, PA, USA
Stephanis Koukis, PA, USA
Gary Lyons, PA, USA
Greg Piro, PA, USA
Karen Russell, PA, USA
Anthony Russo, PA, USA
Raymond, PA, USA
Sara, PA, USA
Tyler Dimicco, RI, USA
Richard Onanian, RI, USA
Michael A., SC, USA
Sam Esswein, SC, USA
John Laverne, SC, USA
William Stewart, SC, USA
Adam, SC, USA
Eva Allen, TN, USA
Charlotte May, TN, USA
Rob Moore, TN, USA

“ It seems to me that some far more ‘elegant’ contraception methods are possible on the male genital organs than on the female ones. And it is definitely time to give men some of their decision-taking back on the number of children they want to have or not have... The male has little choice between the condom, the vasectomy or having to pay for a child he didn’t want. I think we can do better than that, especially knowing that there are such easy solutions as ultrasound. Please do help support research in this area. I think it would save some couples a lot of trouble. ”

- Sarah Bollendorff, Germany

“ I believe we need new contraceptives available to men because currently men have a significant disadvantage when it comes to controlling reproduction. Men have few methods available to curb their own fertility, yet they share in the cost of an unwanted pregnancy. This imbalance needs to be corrected, and men need to be given the chance to ensure that unintended pregnancy does not result from their sexual encounters. Please do all that you can to help bring new male contraceptives to the market. Men should have the opportunity to plan for their future as well. ”

- Ryan Greene, OR, USA

Darrien Thomson, TN, USA
Audrey Wood, TN, USA
Jason, TN, USA
Jamarian Bridges, TX, USA
Christopher C., TX, USA
Jason Collins, TX, USA
Greg Fontenot, TX, USA
Daniel G., TX, USA
Mandy Garcia, TX, USA
Michael Giambalvo, TX, USA
Alexander Hunt, TX, USA
Samantha Hutcheson, TX, USA
Ali Khalil, TX, USA
Rafael M., TX, USA
Hector R., TX, USA
Paul Ulrich, TX, USA
Romelia Vasquez, TX, USA
Romi Vasquez, TX, USA
Troy Wilson, TX, USA
Michael, TX, USA
Katie, TX, USA
Maya, TX, USA
William, TX, USA
Casey, TX, USA
Chelsea, TX, USA
Din, TX, USA
Matt, TX, USA
Jennifer, TX, USA
Allia Borowski, VA, USA
Rachel Crosby, VA, USA
Carter Jackson, VA, USA
Chris Pavlik, VA, USA
Jeffrey Power, VA, USA
Joseph Thornhill, VA, USA
Darren, VA, USA

Andrew Certain, WA, USA
Jeffrey Fildy, WA, USA
Mike Gallagher, WA, USA
Jack L., WA, USA
James Lowell, WA, USA
Scott Morlin, WA, USA
Kevin Tomlinson, WA, USA
Sarah Weeks, WA, USA
Sam Wilson, WA, USA
Erich, WA, USA
Noah, WA, USA
Clint, WA, USA
Brian, WA, USA
B. D., WI, USA
Tim Dole, WI, USA
Iris Hutchings, WI, USA
Michael Kiser, WI, USA
Eric Schultz, WI, USA

Brian Sweeney, WI, USA
Shawn Zimmerman, WI, USA
Kurt, WI, USA
Darrin, WI, USA
Tony Paynter, WV, USA
Josh, WY, USA
Luke Bolton, USA
David Brewer, USA
Justin Carnahan, USA
Michael Carpenter, USA
Magdalena Cerrina, USA
Lauren Fischer, USA
Justin Keppers, USA
Ben Kleinman, USA
Elliot Kneba, USA
Eleanor Levinson, USA
Chad Lichty, USA
Jennifer Lipschitz, USA
David Lyman, USA
Shawn Reynolds, USA
Dan Russo, USA
E. Sterling, USA
Emily Veit, USA
Jordan Wiener, USA
Nick, USA
Heather, USA
Peter, USA
Miki, USA
Andy, USA
Bryan, USA
Kirill, USA
Wayne, USA
Robin, USA
Stefani, USA 

“ Even the best or most well intentioned and committed couples can have accidents... It is way beyond time for men to have some options other than “permanent sterilization” and condoms! Men are well beyond ready and perhaps more appropriately, anxious to have these long overdue options available to them!... The simple fact is: Men are more than ready... We are interested and responsible enough to take it! Thank you for your attention to this most important and pressing issue continuing to affect men today. ”

- Rafael M., TX, USA

The quarter's important clinical findings

A summary of the most interesting male contraceptive research and development concepts and analyses which have been released in the preceding three months.

Male hormonal contraceptives are reliably reversible

A meta-analysis of male hormonal contraceptive (MHC) clinical trials has shown that all tested formulations have a reversible contraceptive effect, with a median recovery time of 3.4 months. "We undertook an integrated multivariate time-to-event analysis of data from individual participants in 30 studies published in 1990-2005... The primary outcome was the time for the sperm concentration to recover to a threshold of 20 million per

mL, an indicator of fertility... The typical probability of recovery to 20 million per mL was 67% within 6 months, 90% within 12 months, 96% within 16 months, and 100% within 24 months. MHC regimens show full reversibility within a predictable time course. Various covariables affect the rate but not the extent of recovery, although their effect sizes are minor. These data are crucial for the further safe and practical development of such regimens."

Liu PY, Swerdloff RS, Christenson PD, *et al.* (2006) "Rate, extent, and modifiers of spermatogenic recovery after hormonal male contraception: an integrated analysis." *Lancet* 367(9520):1412-20.

A delivery mechanism that can cross the blood-testis barrier

Dr. Yan Cheng's lab at the Population Council pioneered a unique delivery mechanism for Adjudin, substantially increasing its "selectivity and efficacy as a male contraceptive." Adjudin disrupts the testis-specific anchoring junctions between developing sperm and Sertoli cells, "inducing germ cell loss from the epithelium." The team created a mutant follicle

stimulating hormone (mFSH), which had almost no FSH bioactivity but was still recognized by FSH receptors. Adjudin complexed with the mFSH was delivered across the blood-testis barrier directly to the target: Sertoli cells. This mFSH-Adjudin compound was effective at doses many times smaller than Adjudin alone.

Mruk DD, Wong CH, Silvestrini B, Cheng CY (2006) "A male contraceptive targeting germ cell adhesion." *Nature Medicine* 12(11):1323-8.

Compounds inhibit contractions of the vasa deferentia

Doctors Christopher Smith and Nnaemeka Amobi of King's College London made headlines in November for their work on a "dry orgasm pill." This team has worked in the lab for a decade to discover the mechanism of action

of two alpha-blocker medications which caused male infertility as a side effect: phenoxybenzamine, prescribed for hypertension, and thioridazine, formerly prescribed for schizophrenia. They found that the drugs each block longitudinal

muscle contractions of the vasa deferentia, but not circular muscle contractions. The circular muscles effectively clamp the vas closed, and sperm are not transported toward the urethra. Having

discovered the biological key, the team has identified other candidate drugs with more favorable side effect profiles. They have not yet published their most recent findings.



The quarter's important policy guidance

A summary of the male reproductive health care policy guidance and regulatory recommendations prepared by organizations, governments, and independent experts working within the field.

Members of the Male Hormonal Contraception Summit make clinical trial recommendations

Nieschlag E (2006) "10th Summit Meeting Consensus: Recommendations for Regulatory Approval for Hormonal Male Contraception." *Journal of Andrology*, 75(3):166-167.

As clinical trials of male hormonal contraceptives continue around the world, researchers have recognized the need for standardized tests for the various formulations under investigation. The investigators agreed that the "information gained from preliminary studies on male contraception [has] reached a stage that hormonal contraceptive products for men should now be proposed for development for general use." At their 10th annual meeting, members of the Male Hormonal Contraception Summit agreed to abide by a set of standards which they hope will smooth the path to regulatory approval.

The agreed-upon standards include:

- safety standards for new chemical entities
- semen parameters of the volunteers allowed to participate in clinical trials
- a standard of efficacy based on sperm count
- standards for the number of men and exposure time involved in Phase II and III clinical trials
- post-treatment follow-up data collection recommendations

Focus on male contraception R&D recommended to USAID

USAID's Office of Population and Reproductive Health participated in an external review process at the end of 2006. The report prepared for the review emphasized the importance of USAID's support

of contraceptive development and introduction, pointing out that it is the single largest public sector funder of such work. The report noted that the Office's 30 year commitment to many aspects

of reproductive health – from biomedical research to service provision to marketing – has given the program an unrivalled richness of experience that has too long gone unrecognized.

The development of new male contraceptives was highlighted as fulfilling “a critical unmet need...” Thanks in part to USAID’s past funding, male hormonal contraceptive products are in various stages of the development pipeline. Recommendations for future male contraceptive development funding included a readily reversible vasectomy technique and a non-surgical sterilization method. Support for non-hormonal systemic male

contraception also warrants further consideration.

The report recommended a continued commitment to the cooperating agencies working to develop and introduce new contraceptives, and stated that USAID’s departure from this field would be a devastating loss. Finally, the report suggested that USAID capitalize upon its leadership role by convening a meeting of contraceptive R&D stakeholders and collectively prioritizing a list of product development projects. It suggested collaboration with the Gates Foundation, the only donor organization which might rival USAID’s resources and interest in this field.

Duncan, GW (2006) “External Review of USAID’s Current and Future Role in Contraceptive Research and Development.” Submitted 5 October to USAID Office of Population and Reproductive Health.

Family planning is critical to attaining the Millennium Development Goals

In the United Kingdom, the All Party Parliamentary Group on Population, Development and Health concluded a series of hearings on population’s links to development. Specifically, the Group addressed how the achievement of the United Nations’ Millennium Development Goals (MDGs) is impacted by population growth. The hearings featured testimony from the World Health Organization, various UN branches, the UK Department for International Development, the World Bank, the International Monetary Fund, multiple national governments, family planning service provision organizations, demographers, reproductive health

specialists, and too many other respected sources to name here.

The Group released its preliminary findings in December. Richard Ottoway, the Member of Parliament who vice-chaired the hearings, summarized their findings: “No country has ever raised itself out of poverty without stabilizing population growth... and the MDGs are going to be difficult or impossible to attain without a levelling out of population growth in developing countries.” The final report is forthcoming, and there is hope that its release will remove any doubt about the utility of family planning as a tool for achieving the MDGs.

All Party Parliamentary Group on Population, Development and Health (2007) “Population Hearing 2007: Background, Oral Evidence, and Written Evidence.” Accessed online 10 January: <http://www.appg-popdevrh.org.uk/>





Male contraceptives in the headlines

Thanks to public interest in and support for the development of novel methods of male contraception, the work of the research community has captured headlines in major media outlets around the world.

Beyond condoms... male hormonal contraceptives may finally be on track

By Regina Nuzzo, *The Los Angeles Times*, 14 October 2006

“Four offspring is plenty for 37-year-old Glen Magdaleno of Los Angeles. ‘Children are grand, but they’re a bit of a hassle too,’ he says. ‘I love my kids, but I just can’t have any more and still be a good parent.’ Not only would Magdaleno, a nursing attendant in a hospital orthopedic ward, be happy to share

contraceptive responsibility with his wife, he’d also like for all men to have options beyond condoms, withdrawal or a vasectomy. To those ends, he recently volunteered at Harbor-UCLA Medical Center to test one of several male birth control drugs being developed around the world.”

Contraception as an option for the man

By Michael Mason, *The New York Times*, 7 November 2006

“Ben Kleinman plans to marry next year, and already he looks forward to starting a family. But he knows, too, that there will come a day when he and his wife do not want more children, and that she may grow weary of shouldering the burden for contraception. His choices then are likely to be very limited: religious use of condoms,

inconvenient and breakable; or vasectomy, an invasive and often irreversible surgery. ‘Relationships are supposed to be about compromise,’ said Mr. Kleinman, 30, a law student at New York University. ‘I should be able to say to my wife, ‘Hey, you’ve been on the patch for a few months — let me take care of this for a while.’”

Male contraceptive study expanded

By a staff writer, BBC Health News, 9 October 2006

“Men have been eager to test the device which is designed as an alternative to surgical vasectomy. The Intra Vas Device or IVD, inserted via a small hole made in the scrotum, is a tiny silicone plug that blocks the tube sperm travel

along in the body... Shepherd Medical Company will begin testing its IVD on October 16. Originally the researchers had planned to include male volunteers from St. Paul, Minnesota, but have expanded trials due to demand.”

Despite hype, male pill still years away

By Dr. Jasmine Karalakingam, ABC News, 4 December 2006

“More international cooperation is needed as well to bring international [male contraceptive] devices to

the United States, ‘starting with re-funding the World Health Organization’s Male Task Force...”

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The International Male Contraception Coalition’s (IMCC) objectives are to speed the development of new male contraceptives through increased legislative and institutional support, to raise funds for applied male contraception research and development, and to educate the public about the work of the research community.

The Male Contraception Information Project (MCIP) is entirely nonprofit and works in three areas: raising public awareness of promising nonhormonal male contraceptives, advocating increased and expedited government research, and serving as a resource for journalists who wish to write about the subject.

