



**The Path2Parenthood Guide
to Infertility Prevention
for Men and Women**

PATH2PARENTHOOD
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6.7 million American women have difficulty getting pregnant, or carrying a baby to term. Men experience infertility too, in comparable numbers. In both sexes, certain types of infertility are, unfortunately, unavoidable but other kinds can be eliminated or greatly diminished by good lifestyle habits and healthy, pro-active choices. No matter who you are, the decisions you make, as early as your teenage years, can affect your fertility potential forever.

This informational handbook helps provide men and women with tools that can help lead to educated decisions about reproductive health, so that infertility can be avoided whenever possible.

Healthy lifestyle choices, concrete knowledge about the biological clock, sexually transmitted disease prevention (STDs) and reducing exposure to environmental toxins, all stack fertility odds in your favor. If you want to learn more, additional, extensive information can be found in Path2Parenthood's comprehensive library at www.path2parenthood.org

Now let's get you started.

What's That Ticking Sound Again?

As women age, their ability to conceive goes down. Pregnancy potential starts its first subtle decline at around age 27, escalating significantly for many women by age 34 or 35. By 42 years of age, most women have only a one percent chance of conceiving naturally each month. And, despite popular belief, in vitro fertilization (IVF) is not an iron-clad fix for age-related infertility. Success rates for women in this age group who are attempting pregnancy with their own eggs, is much lower than that of women under age 35.

The quality and condition of your eggs greatly affect their ability to be fertilized and to develop into an embryo. As a woman ages, both the quantity and quality of the eggs remaining inside her ovaries decline. There are other factors that affect egg health, including lifestyle choices, environmental factors, reproductive disorders, and other medical conditions. A conversation with your physician about egg health early on will be helpful in understanding your overall health.

Freezing the Clock

Social egg freezing (freezing eggs for non-medical reasons), for some, will provide hope, empowerment and possibly, an extension to fertility. With the advent of an effective, flash-freezing technique called vitrification, knowledge of egg freezing and its potential to stop that ticking sound has become highly publicized. Before you pull out your checkbook however, it's important you understand what egg freezing can and can't do.

Hardly an insurance policy, egg freezing is not always successful, nor does it guarantee pregnancy or a take-home baby for everyone. Pregnancy rates from frozen eggs are determined by multiple factors, including a woman's age when she freezes, with younger, being better. Statistically however, the younger a woman is when she freezes her eggs, the less likely she is to retrieve them, later on. Egg freezing also does nothing to reduce your body's natural aging process, so remaining healthy and "pregnancy-ready" in later years is an important factor to consider.



Men Have a Biological Clock, Too.

The male equivalent to menopause is andropause, a natural aging process, earmarked by a drop in male sex hormone levels and fertility potential. Age at the onset of andropause typically begins between 45-55 years of age, but the effect of aging can start as early as age 35. Many men of that age and older, statistically have around half the chance of impregnating their partner through intercourse, than their younger counterparts do monthly.

Advancing paternal age is also associated with a decrease in the genetic quality of sperm cells. Multiple studies indicate decreased IQ and higher rates of autism, schizophrenia, bipolar disorder and birth defects among children born to dads who are over the age of 40, with the most significant developmental delay spikes in children of fathers aged 55 and older.

Infertility affects an estimated one in eight couples in the U.S. today. At least forty percent are due alone or in large part to male factor infertility and sometimes, to advanced or advancing paternal age.

So, is Biology Destiny? There are many variables which affect fertility health, including lifestyle and genetics. Just as every man and woman is different, so is fertility potential, despite biological age. That's why some men can father healthy children well into their 80s and some women give birth naturally to healthy babies in their 40s.

Making healthy choices and finding out the truth about your own, personal fertility potential is important. Another person's fertility cannot predict your own, even if they are a celebrity or movie star.

Never underestimate the power of knowledge! If you are concerned, talk to an infertility specialist such as a reproductive endocrinologist if you're a woman or a urologist, if you're a man, to find out more about your own biology and what you can do, today, to protect your fertility. Path2Parenthood's directory of professionals at www.path2parenthood is a great place to start.



Fertility-Busters to Avoid

Sexually Transmitted Diseases (STIs) - Just one unprotected sexual encounter could lead to a lifetime of infertility. If you are not currently trying to have a baby, condom use will help you avoid fertility-busting STIs like chlamydia, gonorrhea, syphilis and human papilloma virus (HPV) as well as human immunodeficiency virus (HIV), herpes and other infections which can affect both your health and the health of your unborn children.

Getting tested for STIs is a no-brainer, even if you are asymptomatic or have been with the same partner for years. Certain infections, like chlamydia, can go undetected indefinitely and cause pelvic inflammatory disease, scarring and permanent infertility. And, it's not enough for just one partner to get tested. STIs are like ping pong balls and can go back and forth between partners, if both are not treated.

Everyone gets nervous about getting tested but when it comes to fertility, and your overall health, what you don't know can hurt you. Most STIs respond well to treatment and others, such as HIV, can be controlled and lived with. In fact, treatments exist which allow HIV-positive individuals to become parents.

Environmental Toxins - They don't just affect the planet, they also hurt your body, and the body and brain of the baby you may carry someday. There's irrefutable evidence that many environmental factors have an effect on fertility in men, women and developing fetuses. Avoiding chemical toxins completely is not easy, but reducing your exposure can help dramatically. Steps to take include:

- **Choose plastics with the recycling code 1, 2 or 5** - Recycling codes 3 and 7 are more likely to contain bisphenol A or phthalates and should never be used to re-heat food.
- **Do not eat food from cans unless they are BPA free** - A chemical, bisphenol A (BPA), is widely used in products such as cans, milk container linings, water pipes and dental sealants, A known endocrine disruptor, BPA has also been linked to increases in breast and prostate cancer.
- **Avoid mercury** - Fish are an important part of any health regime, however, fish containing high levels of mercury should be avoided, especially during pregnancy, or when planning for pregnancy. Mercury causes cell mutations which can lead to cancer, miscarriage and possibly autism. The worst offenders are shark, albacore tuna, swordfish, king mackerel and tilefish. Eat no more than 12 ounces of fish a week in varieties known to have lower levels of mercury, such as shrimp, light tuna, salmon, pollock and catfish.
- **Check labels for benzene** - Used to make certain rubbers, lubricants, dyes and detergents, benzene is also found in cosmetics, like nail polish and hair dye. An endocrine disruptor linked to cancer as well as infertility and other health issues, benzene is also found in cigarette smoke, gasoline and crude oil.

- **Avoid phthalates** - An endocrine disruptor which mimics the body's hormones, phthalates is one of the worst chemical fertility offenders. You can avoid it in part by reading the ingredient list in both household and personal grooming products. Some chemical names and abbreviations of phthalates include:

- **DBP** (di-n-butyl phthalate) and **DEP** (diethylphthalate) are often found in personal care products, including nail polishes, deodorants, perfumes and cologne, aftershave lotions, shampoos, hair gels and hand lotions.

- **DEHP** (di-(2-ethylhexyl) phthalate or Bis(2 ethylhexyl) phthalate) is used in PVC plastics including some medical devices.

- **BzBP** (benzylbutyl phthalate) is used in some personal care products, flooring and car products.

- **DMP** (dimethyl phthalate) is used in insect repellent and some plastics (as well as rocket propellant).

- **A smelly term** - Be wary of the ingredient listing, "fragrance," which may be used to denote a combination of compounds, including phthalates.

Organic really is better. Chemicals in processed foods, insecticide traces in fruits and vegetables and hormones in meat and chicken can all conspire to tip your fertility potential into the negative column. When possible, opt for organics and avoid genetically modified organisms (GMOs).

The Environmental Working Group (EWG) maintains a data base of popular products and their chemical compositions at <http://www.ewg.org/skindeep/> where you can check items you use for their overall rating and toxicity level.

Stop. Smoking. Now.

One of the worst things you can do to your fertility and overall health is smoke cigarettes or be exposed to second-hand smoke. The chemicals in cigarettes include nicotine, cyanide and carbon monoxide, all of which accelerate egg death, even in young women. It also reduces sperm quality and quantity, as well as the ability of sperm to penetrate and fertilize eggs. Smoking is also a leading cause of erectile dysfunction, a fertility non-starter. Smoking and second-hand smoke exposure also puts infants and babies at a higher risk of Sudden Infant Death Syndrome (SIDS), and other health issues, and even affects their fertility potential, later on in life.





Steroid Use is Fertility Abuse

Anabolic steroids, also called performance-enhancing drugs (PED) are often misused by men of all ages, including teenagers, who are hoping to pump up muscle mass or improve athletic prowess. Steroids can do severe, long-term damage to reproductive health. Testosterone-based substances, steroids work almost like a contraceptive by, diminishing natural testosterone production. Sometimes, the damage they do cannot be undone, causing the testicles to shrink and no longer produce sperm. The good news is, if you stop quickly, the problem can be reversed with time. The longer you use steroids and the higher the dose, the less likely you will be to eradicate the harm done.

Weight and Fertility

Obesity not only destroys health, it also can reduce fertility, in both men and women. Maintaining a healthy body mass index (BMI) and keeping yourself physically fit with exercise can enhance and maintain fertility potential, plus provide for a healthier pregnancy, labor, delivery and baby. What you eat matters and only a 10 percent reduction in body mass can make a difference.



Taking it to the Next Level

So, you know you want to be a parent, just not yet. If so, dialoguing with a health practitioner can help you make proactive changes and even, put your mind at ease about your future. Doctors that can help include:

- An Ob/Gyn (obstetric gynecologist) diagnoses and treats the general female population and cares for women during pregnancy.
- A reproductive endocrinologist is a gynecologist who has undergone additional training to specialize in infertility and hormonal disorders.
- A urologist is a physician who has had specialty training to diagnose and treat diseases of the male and female urinary tracts, as well as the male reproductive organs.

Your doctor may recommend specific tests. These include but are not limited to:

- Information about a woman's current egg supply can be acquired through certain types of blood tests, including the FSH (follicle stimulating hormone) test and the AMH (anti-mullerian hormone) test. They are not predictive of future fertility but can give you some information about where you stand, in terms of egg quality and quantity. Other blood tests can help your physician determine hormonal levels.





- Sonograms can provide information about the uterus and ovaries.
- Other tests for women include sonohysterogram, which evaluate issues like uterine abnormalities and the endometrium and hysterosalpingogram, which can pinpoint tubal blockages and scarring.
- For men, a semen analysis provides information about sperm mobility, motility and morphology.
- Bloods tests for hormonal evaluation, genetic testing and tests for anti-sperm antibodies may also be performed in men.
- Full physicals and medical health histories can also provide fertility clues in both men and women.

Based upon your test results, current age and future aspirations for your life's goals, your physician may make certain recommendations to you, including egg, embryo or sperm freezing.

Taking It Slow, but Smart

It's ok to not be ready to have kids. Becoming a parent is an important decision and one that will change your life forever. The important thing is to be smart, take care of yourself, and understand as fully as possible the realities of your own fertility. You can also make changes that will make you healthier, not only reproductively, but in every way.

There are breakthroughs happening every day in the world of fertility so stay informed! **And, whenever you have a question, Path2Parenthood is here to help.**

Resources

- “Big Delts and Baby Balls: Why You Should Avoid Steroids,” Urologist Nerds Drinking Beer, <http://www.path2parenthood.org/article/big-delts-baby-balls-why-you-should-avoid-steroids/>
- Centers for Disease Control and Prevention (CDC) “FastStats Infertility” <http://www.cdc.gov/nchs/faststats/infertility.htm>
- “Children of older dads face higher bipolar risk,” <http://www.nbcnews.com/id/26497981/>
- “Dreams to Reality: Family Building for Men and Women Living with HIV,” <http://www.path2parenthood.org/article/dreams-to-reality-family-building-for-men-and-women-living-with-hiv/>
- “Evolutionary Theory and the Older Dad,” Whelan, Corey, <http://www.path2parenthood.org/blog/evolutionary-theory-and-the-older-dad/>
- “Fat: The Biggest Infertility Issue?” Chen, Serena, M.D. <http://www.path2parenthood.org/blog/fat-the-biggest-infertility-issue/>
- “Frequently Asked Questions About Egg Freezing,” <http://uscfertility.org/egg-freezing-faqs/>
- “How to Avoid Phthalates in 3 Steps,” Shapley, Dan, <http://preview.www.thedailygreen.com/environmental-news/latest/phthalates-47020418>
- “The Male Biological Clock,” Fisch, Harry, M.D., <http://www.path2parenthood.org/blog/the-male-biological-clock/>
- “Older Fathers, Lower IQ in Kids?” Doheny, Kathleen, <http://www.webmd.com/baby/news/20090309/older-fathers-lower-iq-in-kids>
- “Public Enemy Number One for Male Fertility: Anabolic Steroids,” Honig, Stan, M.D., <http://www.path2parenthood.org/article/public-enemy-1-for-male-fertility-anabolic-steroids/>
- “Quick Facts About Infertility,” <https://www.asrm.org/detail.aspx?id=2322>
- “Tick Tock – How Much Time Do I Have Left To Get Pregnant?” Hill, Allison, Dr., www.Path2Parenthood.org
- <http://www.egghealth.com>

More information on this topic, and all other topics relating to infertility, adoption and family building can be found at **www.path2parenthood.org**

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Path2Parenthood (P2P) is an inclusive organization committed to helping people create their families by providing cutting-edge outreach programs and timely educational information. The scope of our work encompasses reproductive health, infertility prevention and treatment, and family-building options including adoption and third party solutions. P2P is a national, not-for-profit 501(c)(3) charitable organization headquartered in New York City.

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