

Tried, But Not Always True

Methods to Choose Baby's Sex Range From New Tech to Old Ideas

April 19— For centuries, couples have tried influencing the gender of their unborn children by a myriad of dubious tricks

Some techniques involved men tying off their left testicles (since they believed sperm to create girls came from the left), women sleeping on the right side of their husband, and basing who initiates intercourse by the gender of the child they would prefer to conceive (sex initiated by women supposedly created girls while sex-initiating men created boys).

Today, technologies are available to allow couples to choose the children's gender a little more reliably. But some couples and gender selection companies still stand by some natural methods that, they say, can increase a couple's odds of conceiving a child of their preferred gender. Below is a list of technologies and natural methods used by people who want to choose their child's sex.

Technologies

■ **Preimplantation Genetic Testing:** Using in vitro fertilization techniques, doctors remove eggs from the woman and fertilize them with sperm in the lab to create embryos. After three days, the embryos' chromosomes are analyzed — a Y chromosome signals it's a boy. Doctors then implant an embryo of the desired sex into the mother. If the pregnancy takes, this is a very reliable, though controversial method of choosing gender.

■ **MicroSort:** MicroSort was first used in clinical trials in 1993 and became available to all couples in 1996. The Fairfax, Va.-based company bases the technique on the fact that X-carrying sperm weigh more than Y-carrying sperm. A sperm sample is stained with a fluorescent dye that binds with the chromosomes. Since the X chromosome is larger, it absorbs more dye and, therefore, glows brighter under the illumination of a laser. An electrode then assigns a positive charge to those X chromosomes that glow brighter and a negative charge to those Y chromosomes that glow less brightly. The charged sperm are tugged by their charges into separate containers and couples can select one or the other for fertilizing the woman's egg.

■ **Ericsson Method:** This technique is based on the idea that Y-chromosome-carrying sperm, which create boys, are lighter and faster swimmers than X-chromosome-carrying sperm, which create girls. Sperm is poured over a viscous fluid. As the sperm swims downward, scientists capture those sperm that reach the bottom first. Due to the faster swimming rate of Y-carrying sperm, these are assumed to be Y-bearing sperm. The X-carrying sperm (supposedly made up of slower swimmers) is collected closer to the top of the sample. Companies claim a success rate of 70-75 percent, but critics say these results have not been repeated and aren't reliable.

■ **Spin Method:** In another method based on the heavier weight of X-chromosome-carrying sperm, semen is spun in a centrifuge. The heavier, X-carrying, or girl-producing sperm collect at the bottom of the test tube, while Y-carrying sperm collect in the middle. Some companies claim an 80 percent success rate, but such results haven't been repeated.

Natural Methods

Some of the most popular natural methods to choose a baby's gender were developed by Landrum Shettles, a U.S. doctor who believed that the slight differences in X and Y sperm could be taken advantage of by choosing specific behaviors that may influence which sperm reaches the egg first during conception. Many books and home gender selection kits borrow from these ideas. Below are some basic explanations of some of Shettles' principles, which remain largely unproven in the scientific community.

■ **Diet:** To conceive a boy, the mother should consume foods high in sodium and potassium, and minimize her intake of calcium and magnesium. To conceive a girl, the mother should consume foods high in calcium and magnesium and avoid foods that are high in sodium and potassium.

■ **Timing:** To have a boy, the Shettles technique recommends having sex no earlier than one day before and up to one-half day after ovulation. To have a girl, he suggests having sex no later than two and one-half to three days prior to ovulation.

■ **Acidity:** Some methods, including the home kit, GenSelect, claim that douching with an acidic or alkaline solution can tip the balance to having a boy or girl. The idea is a girl is more likely to be conceived in an acidic environment, while boys are more likely to be created in an alkaline one. Therefore, douching with vinegar (or specifically devised acidic solutions) is recommended for those wanting a girl, while douching with baking soda (or specifically devised alkaline solutions) is suggested for those wanting a boy.

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