

[Your Baby's Sex: Now You Can Choose \(1970\), by David M. Rorvik and Landrum B. Shettles](#) ^[1]

By: Blight, Alysse Keywords: [Shettles Method](#) ^[2] [David Rorvik](#) ^[3] [sex chromosomes](#) ^[4] [Conception methods](#) ^[5]

In the book *Your Baby's Sex: Now You Can Choose*, David Michael Rorvik and [Landrum Brewer Shettles](#) ^[6] describe methods that couples can use prior to and during [conception](#) ^[7] that will increase the chances of producing a child of their desired sex. Rorvik, a science writer, and Shettles, an obstetrics and gynecology researcher and physician, co-wrote the book. Shettles developed the methods detailed in the book during the 1960s. Although the authors claim a high success rate, some researchers have contested the validity of the methods proposed in *Your Baby's Sex: Now You Can Choose*. Despite contradicting evidence for the effectiveness of the methods, the book itself has remained popular throughout its forty consecutive years in print. Since its original publication, *Your Baby's Sex: Now You Can Choose* has reached a large audience, with over 1.5 million copies of the book sold worldwide, while adding to the controversy about the ethics of sex selection research.

Both Rorvik and Shettles were affiliates of [Columbia University](#) ^[8] in New York City, New York, when they first met. Rorvik graduated from Columbia University's Graduate School of Journalism in 1967 and later he worked as a science journalist and medical reporter in New York City. Shettles was a faculty member at Columbia University's College of Physicians and Surgeons, and a staff member at Columbia-Presbyterian Medical Center in New York City. In 1969, Rorvik published an article on Shettles's work in the field of reproductive health in *New York Magazine*. The article led to their collaboration on *Your Baby's Sex: Now You Can Choose*, which was published just one year later in 1970.

According to Rorvik and Shettles, there was a particular need for reproductive health research in the late twentieth century. Up until 1950, the authors claim that little was known about the early stages of human development due to a risk of manipulating life that took precedence over the importance and necessity of reproductive research. Despite that risk, few reproductive health experts, including Shettles, made advancements in the field.

Prior research had determined that [humans](#) ^[9] have two sex chromosomes, or structures of genetic material that determine their sex, designated with the letters X and Y. Females have two X chromosomes, while males have one X chromosome and one Y chromosome. During [conception](#) ^[7], the female [egg](#) ^[10] contributes one X chromosome and the male [sperm](#) ^[11] contributes either an X or a Y chromosome. It means that male [sperm](#) ^[11] cells determine the sex of the embryo. Researchers also knew of the differences between the two sex chromosomes carried by male [sperm](#) ^[11], in that X chromosomes are larger than Y chromosomes. As detailed in *Your Baby's Sex: Now You Can Choose*, Shettles worked under the assumption that he should be able to tell the difference between X-carrying [sperm](#) ^[11] and Y-carrying [sperm](#) ^[11], and began researching the idea.

In the early 1960s, Shettles determined that there were two distinct types of male [sperm](#) ^[11] cells based on size and shape when examining live specimens. A male [sperm](#) ^[11] cell normally has a head, a neck, a middle piece, and a tail. The head is the part that carries the genetic information including the X or Y chromosome. Shettles used a phase-contrast [microscope](#) ^[12] to illuminate the [sperm](#) ^[11] heads and revealed their distinct shapes, which were distorted under traditional microscopes. Shettles examined over 500 [sperm](#) ^[11] specimens and concluded that the small, round-headed [sperm](#) ^[11] contained the male-producing Y chromosome, whereas larger, oval-shaped [sperm](#) ^[11] contained the female-producing X chromosome.

After drawing that conclusion, Shettles began to test how he could utilize that finding to help couples choose the sex of their child. By manipulating the environment in which he observed the sperm's motility, he determined that different [sperm](#) ^[11] cells travel more easily in different vaginal environments. Given that information, Shettles developed specific steps for couples to take prior to and during [conception](#) ^[7] to increase their chances of producing an infant of their desired sex. He called that method the Shettles method. The premise of the method presented in *Your Baby's Sex: Now You Can Choose* is based on the pH, acidity or alkalinity, of the vaginal environment and timing of the intercourse.

Rorvik and Shettles organized *Your Baby's Sex: Now You Can Choose* in two parts. In part one, which contains chapters one through five, the authors explain the history of sex selection research and the development of the Shettles method. In chapter three specifically, the authors describe the Shettles method for sex selection and provide specific steps for couples to take based on which sex they desire. Also in part one, the authors also address concerns of potential physical harm that the methods might cause in both parents and offspring, and the sociological impacts of sex selection. In part two, which contains chapters six and seven, Shettles and Rorvik address the future of reproductive intervention. The authors examine the potential advancements in preconception sex selection, and discuss the potential for sex to change after [conception](#) ^[7] through genetic modification.

Rorvik and Shettles begin part one of *Your Baby's Sex: Now You Can Choose* by explaining the desire of many people to choose the sex of their children throughout history, and the suggested means of doing so. They start with [Aristotle](#)^[13], an ancient Greek philosopher, who suggested that the more rigorous individual in the relationship, especially during the act of [sexual intercourse](#)^[14], determined the sex of the child. Rorvik and Shettles further detail that, during the Middle Ages, it was a common belief that a couple could produce a male infant if the woman drank a concoction of wine and lion's blood prior to having intercourse under a full moon while a local wise man prayed over the couple.

The authors state that other misconceptions of sex selection were based on the idea that, like some animals in nature, females had a [uterus](#)^[15] on each side of the body and the one on the right side produced male infants. According to Rorvik and Shettles, such ideas stemmed from the lack of knowledge of human anatomy, which was a restricted area of study at the time due to a strong religious presence in science and the subsequent difficulties in using cadavers to study human anatomy. The authors explain that scientists described female eggs and male [sperm](#)^[11] for the first time in the 1800s, when [fertilization](#)^[16] started to be explained scientifically rather than using superstition. The discovery of human seminal matter allowed for advancements in reproductive health, a field that had previously lacked sound scientific support.

After explaining Shettles's research on [sperm](#)^[11] cells and the development of his methods^[11], the authors provide step-by-step procedures for producing an infant of the desired sex in chapter three. The authors argue that the favored environment for producing a female offspring is acidic and that intercourse should occur two or three days before [ovulation](#)^[17] when the vaginal environment is the most acidic. The authors suggest that the woman douche with a solution of white vinegar and water prior to intercourse and refrain from having an orgasm, which causes the production of alkaline, or basic, secretions that may neutralize, or weaken, the acidic environment. The authors also suggest that couples assume a face-to-face position and perform shallow penetration during intercourse so the female-producing [sperm](#)^[11] pass through the acidic environment of the [vagina](#)^[18].

Rorvik and Shettles explain that the favored environment for producing a male infant is alkaline, and that the intercourse must occur on the day of [ovulation](#)^[17] or shortly after, when the vaginal environment is the most alkaline. The authors suggest that women use a douche consisting of baking soda and water preceding intercourse and have an orgasm during intercourse, specifically before the male. According to the authors, the best position for producing a male involves deep vaginal penetration from the rear, so [sperm](#)^[11] is close to the [cervix](#)^[19] where the environment is naturally alkaline. The authors include a disclaimer in which they do not guarantee their methods will result in success on every occasion. However, they claim that their methods have an 80 percent success rate and, with precise execution of the laid out steps, couples can increase their chances of producing an infant of their desired sex to 90 percent.

In the rest of part one of *Your Baby's Sex: Now You Can Choose*, Rorvik and Shettles address personal questions and societal concerns about sex selection as a means of reproductive intervention. When Rorvik published an article about Shettles's research in *New York Magazine* in 1969, many people wrote to Shettles asking specific questions. The authors dedicate a portion of part one to answering those questions and elaborating on a variety of topics, including the safety of their methods. The authors state that the douche that they suggest women use prior to intercourse has no harmful effects on the mother or her offspring and claim that all infants were born completely normal when the Shettles method was tested. Rorvik and Shettles also explain why their methods of sex selection are exempt from moral or ethical objections. They claim that many different religious entities have cooperated with Shettles during his research, including Protestant ministers, Jewish rabbis, and the Archdiocese of the Catholic Church, and determined that the Shettles method is acceptable under their respective belief systems.

In part two, the authors examine the implications of sex selection in the future. They describe the technological advancements in reproductive medicine during the mid-twentieth century as a biological revolution. In particular, the authors claim that [cloning](#)^[20] technology has the potential to enable men to father offspring without the need of women, and that the offspring would be identical to them in every way. The authors acknowledge that what they discuss in part two may seem like science fiction, but argue that data demonstrate that such technologies could be utilized in the near future. The authors also address the possibility of sex change after [conception](#)^[7] by comparing studies on animals that do so. Based on the knowledge available at the time the book was published, the authors state that through genetic engineering, or the technological manipulation of genetic material within cells, [humans](#)^[9] will be able to copy the same mechanisms that animals use to purposefully change their sex after [conception](#)^[7] or to switch sexes at will in the case of unequal distribution within a population. The authors conclude part two by stating that one day, children could be both male and female, and therefore sex selection would not be necessary.

Since its original publication in 1970, there have been six revised editions of Rorvik and Shettles's book *Your Baby's Sex: Now You Can Choose*. In each edition, the authors refine their methods to improve their convenience and feasibility for couples at home, however the basis of the methods is maintained within each edition. Rorvik and Shettles published the sixth edition of the book in 2006. They claim that other methods of sex selection since the book's original publication failed because they cannot be replicated and are ethically questionable. Rorvik and Shettles state that their methods are the only sex selection methods that are continuously supported by scientific data, and therefore are the most reliable. Based on the support they received from religious entities and ethicists within the scientific community, the authors also claim that their methods are the most ethical. The sixth edition of *Your Baby's Sex: Now You Can Choose* provides data from updated studies that show a 75 percent success rate for couples trying for females and an 80 percent success rate for couples trying for males.

Despite the popularity of *Your Baby's Sex: Now You Can Choose* indicated by its successful years in print with over one million

copies sold, other researchers contested Shettles methods. In 1979, a study published in *The New England Journal of Medicine* supported the methods. The study included over three thousand births, and concluded that the timing of [sexual intercourse](#)^[14] during a woman's menstrual cycle does affect the sex of the child. More specifically, the 1979 study demonstrated that male children were often produced when intercourse occurred two days after [ovulation](#)^[17], which is consistent with the methods presented in *Your Baby's Sex: Now You Can Choose*. However, in 1991, a smaller study published in *The American Journal of Obstetrics and Gynecology* produced opposite results, demonstrating significantly fewer male births when [conception](#)^[7] occurred during [ovulation](#)^[17]. A study published in *The New England Journal of Medicine* in 1995 refuted all claims that timing of intercourse affected the outcome of a child's sex, arguing that there was no association between the two and that timing of intercourse holds no value in sex selection.

Despite inconclusive evidence, Rorvik and Shettles maintained their original methods in all revised editions of *Your Baby's Sex: Now You Can Choose*. After the publication of the sixth edition of the book in 2006, researchers conducted a study on the shape of [sperm](#)^[11] cells. That experiment demonstrated that [sperm](#)^[11] carrying X or Y chromosomes were very similar in shape. That study negated Shettles's original research, which set the foundation for the methods presented in the book. As of 2018, the authors have yet to respond to the conclusion of that study.

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