

The Science of the Sexes



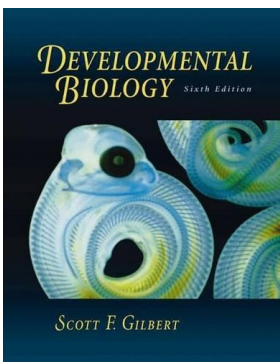
“Typically females have two X chromosomes and males have an X and a Y. Mothers always pass an X chromosome on to their children. Whether your father passes on his X chromosome (leading to a pair of X chromosomes) or his Y chromosome (making a mixed set) determines your sex.” — **“The X and Y Chromosomes Determine Your Sex,”** 23andMe (California's leading personal

genomics and biotechnology company) <https://www.23andme.com/gen101/origins/>



Humans have 46 chromosomes arranged in 23 pairs. Forty-four of these chromosomes are called autosomes. The remaining two are called the sex chromosomes. Females have two X chromosomes, and males have one X and one Y chromosome. Children get half of

their chromosomes from their mother and half from their father. A person's chromosomal makeup is called a karyotype, a word that is also used for a picture of a person's chromosomes (GHR, 2008g; NHGRI, 2008g). — **“Chromosomes,”** Dale Halsey Lea, MPH, RN, CGC, FAAN (February 17, 2009) **“Basic Genetics and Genomics: A Primer for Nurses”** OJIN: The Online Journal of Issues in Nursing; Vol. 14 No.2. <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol142009/No2May09/Articles-Previous-Topics/Basic-Genetics-and-Genomics.aspx>



Primary sex determination is the determination of the gonads. In mammals, primary sex determination is strictly chromosomal and is not usually influenced by the environment ... The Y chromosome carries a gene that encodes a testis-determining factor. This factor organizes the gonad into a testis rather than an ovary. Unlike the situation in *Drosophila* (discussed below), the mammalian Y chromosome is a crucial factor for determining sex in mammals. A person with five X chromosomes and one Y chromosome (XXXXXY) would be male.

Furthermore, an individual with only a single X chromosome and no second X or Y (i.e., XO) develops as a female and begins making ovaries, although the ovarian follicles cannot be maintained. For a complete ovary, a second X chromosome is needed. — **“Chromosomal Sex Determination in Mammals,”** *Developmental Biology*, 6th edition, Scott F. Gilbert, PhD, 2000. <https://www.ncbi.nlm.nih.gov/books/NBK9967/>



The man who's had two sex changes

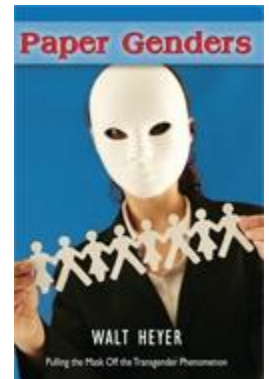
Incredible story of Walt, who became Laura, then REVERSED the operation because he believes surgeons are too quick to operate – 1/26/15 Daily Mail (UK)

When he was five, everything changed. “It was then my grandmother, when I was being babysat by her, started dressing me in female clothing. She even made me a purple chiffon evening dress,” he said. ... “[My uncle] Fred began to sexually molest me. Mom’s discipline got even more severe and I would learn much later in life that on one occasion, her discipline was so tough, she thought she had

almost killed me.” The treatment he suffered from those entrusted to protect him made him feel like he was ‘a girl trapped in a male’s body’, he said, and he became reclusive because of it. 37 years later, he would finally take the drastic step to become a woman – and he lived for eight years as Laura Jensen.

See how Walt was restored as a man: <http://www.dailymail.co.uk/news/article-2921528/The-man-s-TWO-sex-changes-Incredible-story-Walt-Laura-REVERSED-operation-believes-surgeons-quick-operate.html>

Visit Walt’s website – <http://sexchangeregret.com>



Sex-change surgery exploits the mentally vulnerable



"In 1979, SBCU Chair Jon Meyer conducted a study comparing 29 patients who had the surgery and 21 who didn't, and concluded that those who had the surgery were not more adjusted to society than those who did not have the surgery. Meyer told The New York Times in 1979: "My personal feeling is that surgery is not proper treatment for a psychiatric disorder, and it's clear

to me that these patients have severe psychological problems that don't go away following surgery. After Meyer's study was published, Paul McHugh, the Psychiatrist-in-Chief at Hopkins Hospital who never supported the University offering the surgeries according to Schmidt, shut the program down... McHugh says that it shouldn't be surprising that Hopkins discontinued the surgeries, and that he still supports this decision today. He points to Meyer's study as well as a 2011 Swedish study that states that the risk of suicide was higher for people who had the surgery versus the general population."

— "Hopkins Hospital: a history of sex reassignment," The Johns Hopkins Newsletter, 5/1/14

<http://www.jhunewsletter.com/2014/05/01/hopkins-hospital-a-history-of-sex-reassignment-76004/>



Sex changes are not effective, say

researchers David Batty, The Guardian, 7/30/04

<https://www.theguardian.com/society/2004/jul/30/health.mentalhealth>

The review of more than 100 international medical studies of post-operative transsexuals by the University of Birmingham's aggressive research intelligence facility (Arif) found no robust scientific evidence that gender reassignment surgery is clinically effective. The Guardian asked Arif to conduct the review after speaking to several people who regret changing gender or believe that the medical care they received failed to prepare them for their new lives. They explain why they are unhappy with their sex change and how they cope with the consequences in the Weekend magazine tomorrow (July 31). Chris Hyde, the director of Arif, said: "There is a huge uncertainty over whether changing someone's sex is a good or a bad thing. While no doubt great care is taken to ensure that appropriate patients undergo gender reassignment, there's still a large number of people who have the surgery but remain traumatised - often to the point of committing suicide." Arif, which advises the NHS in the West Midlands about the evidence base of healthcare treatments, found that most of the medical research on gender reassignment was poorly designed, which skewed the results to suggest that sex change operations are beneficial. Its review warns that the results of many gender reassignment studies are unsound because researchers lost track of more than half of the participants. For example, in a five-year study of 727 post-operative transsexuals published last year, 495 people dropped out for unknown reasons. Dr Hyde said the high drop out rate could reflect high levels of dissatisfaction or even suicide among post-operative transsexuals.