



Girl Power

The Stronger Sex: What Science Tells Us About the Power of the Female Body

By Starre Vartan

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REVIEW BY JUHIE BHATIA

STARRE VARTAN SPENT HER childhood pushing her physical limits. An active kid raised by her grandmother, she played in the woods for hours, went mountain biking, rode her neighbor's horses and climbed trees. Her grandmother also had a running list of chores that she assumed Vartan could handle, be it carrying 50-pound bags of dog food or heaving a lawnmower up a hill.

The physical freedom her grandmother allowed encouraged Vartan to trust her body and develop a sense of her strength, even as societal messages tried to undermine it. "Over the years, these gendered messages that ignored my abilities made me feel invisible," she writes. "I was seen first for my sex, not my strength—for my long, blonde, curly hair, not my muscles."

Vartan, a science writer, sets out to upend this messaging in *The Stronger Sex*. The book takes an in-depth look at women's numerous and varied strengths, shattering the stubborn myth that men are inherently stronger. In the process, it reveals how these stereotypes around physicality have far-reaching consequences, including disempowering women in multiple ways.

The notion that women are weaker starts young and has lifelong repercussions, Vartan says. Girls are often discouraged from doing physical labor and are less physically challenged than boys. Gender-segregated sports for kids perpetuate these false beliefs, she adds, since there's "no inherent difference in muscular power, coordination or physical ability" before puberty. When girls get older, they're typically rewarded for being smaller and less muscular. One study shows that by age 14, girls drop out of sports at twice the rate of boys.

"When girls and women grow up in a culture that discourages them from testing the limits of their physical strength (and one where boys and men routinely are encouraged to), it's no wonder they believe they're weaker," Vartan observes.

Even the cultural definition of physical strength is based on what men's bodies are good at: explosive power that's useful for things like lifting heavy weights. The muscles in female bodies usually excel at longer-lasting power, making women more likely to shine in feats of endurance. This is commonly accepted, Vartan ex-

plains, partly because of a lack of exercise science research devoted to women's bodies. Girls and women athletes are trained as "smaller men," for example, as a result of that lack.

This is slowly starting to change, though, and Vartan takes a deep dive into the latest research that does exist. She also talks with experts and women who defy the stereotypes, from woodchoppers and teen wrestlers to firefighters, systematically breaking down how female bodies are far stronger than we think. As she takes readers on a journey through women's anatomy—muscles, ovaries, the hormone estrogen—she shows how women surpass men in endurance, immunity, flexibility and pain tolerance. In general, women are more robust at every life stage, one reason they live on average about five to seven years longer than men.

Vartan also works to undo negative messaging around women's bodies by shedding light on how commonly demonized aspects like body fat and menstruation can be a superpower for strength. Menstrual cycles are flexible and adaptable, which allows a body to be efficient. And fat is the foundation of female strength, helping fuel physical activity, support reproductive capability and brain health, balance hormones and much more.

Alongside exposing these truths, Vartan also tries to include gender-diverse perspectives in the book. She calls for the recognition and inclusion of transgender women as women in our culture, and of trans and non-conforming bodies in mainstream medical research, laying out early how the female body—in its various iterations—is about variety and flexibility. "Women contain multitudes. It's a big red tent," she writes.

Ultimately, Vartan urges us to expand our narrow views and raise our expectations of women's physical strength, particularly as we're still uncovering the full potential of female bodies. In this re-envisioned world, research would be inclusive, strength would be defined by what female bodies do well too, "run like a girl" wouldn't be an insult, and women and men would compete on equal terms.

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