SB 381: Education - Interscholastic and Intramural Junior Varsity and Varsity Teams - Designation Based on Sex (Fairness In Girls' Sports Act): Please SUPPORT this bill!!

If you have ever played sports, as I did in high school, there is a VAST difference between biological males and biological females.

Biological males have the advantage on most fundamental motor skills, particularly object control (throwing, catching, kicking) and body control (agility) skills. “Because of sex differences, the male will have a larger heart, greater lung capacity, greater muscle mass, more red blood cells, and less body fat, all of which give males performance advantages over females. These differences are obvious to most people, which is why most people believe it’s unfair and perhaps unsafe for men to compete against women in sports. Many anatomical sex differences driven by testosterone are not reversible. Hemoglobin levels and muscle mass are sensitive to adult life testosterone levels, with hemoglobin being the most responsive. Studies in transgender women, and androgen-deprivation treated cancer patients, show muscle mass is retained for many months, even years, and that co-comittant exercise mitigates muscle loss. Given that sports are currently segregated into male and female divisions because of superior male athletic performance, and that estrogen therapy will not reverse most athletic performance parameters, it follows that transgender women will enter the female division with an inherent advantage because of their prior male physiology.

The current IOC regulations allow transwomen athletes to compete if testosterone levels have been lowered to <10 nmol/L for 12 months prior to competition. While this begins to address the advantageous effects of circulating testosterone on athletic performance, it does not take into account the advantage afforded by testosterone exposure prior to transitioning. The existing data suggests that lowering testosterone to less than 10 nmol/L for 12 months decreases muscle mass but not to biological female levels and despite the decrease in mass, muscle strength can be maintained, especially if concurrently exercising. Estrogen therapy does not affect most of the anatomical structures in the biological male that provide a physiological benefit. Hemoglobin levels are lowered by estrogen therapy, and consequently, maximum aerobic effort may be lower, but this parameter will only be manifested if testosterone levels are suppressed to levels within the biological female range and maintained for extended periods of time. Reported studies show it is difficult to continuously suppress testosterone in transgender women. Given that the percentage difference between medal placings at the elite level is normally less than 1%, there must be confidence that an elite

transwoman athlete retains no residual advantage from former testosterone exposure, where the inherent advantage depending on sport could be 10–30%. Current scientific evidence can not provide such assurances and thus, under abiding rulings, the inclusion of transwomen in the elite female division needs to be reconsidered for fairness to female-born athletes."
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9331831/

According to The American College of Sports Medicine (ACSM):

- Biological sex is a determinant of athletic performance: adult males are faster, stronger, more powerful than females because of fundamental sex differences in anatomy and physiology dictated by sex chromosomes.
- Before puberty, sex differences in athletic performance are minimal. Significant differences emerge at puberty (-12 years) due to anabolic effects of testosterone in males. Testosterone levels rise 20-30-fold in males during puberty and are 15 times higher in males than females by age 18.
- Direct and indirect effects of testosterone during male puberty include increase skeletal muscle mass due to larger muscle fiber cross-sectional area, especially fast, type II fibers; lower percentage body fat; higher hemoglobin concentration and mass; larger ventricular mass (heart) and cardiac volumes; larger airways and lungs; greater body height; and longer limbs.
- Adult males are stronger, more powerful, and faster than females of similar age and training status. The sex difference in athletic performance where endurance or muscular power is required is roughly 10-30% depending on the event.

Recently, a female flag football team debuted in the State of Maryland. Can you imagine if a 6'3" post-pubescent biological male, or several, had competed on this football team? They would have a huge competitive advantage over the biological females, not to mention that they may have posed a severe threat of injury to the female athletes. (I used that example, because I dated a tackle/linebacker in high school that was 6'3" and weighed 240 lbs. He lifted weights every day in the school gym to keep in shape for football, and then track & field, where he competed in the discus and shotput. He was insanely strong, so much stronger than a female! And he was so much faster than a female)!

There are many more examples I would document, but that would take up too much of your time to read. Simply put, biological males have a biological and competitive advantage over biological females in sports. It is completely unfair and even dangerous to have biological males compete against biological females!!

I implore you to please think this through before you vote on this bill!!

We need to protect our daughters/female athletes from the physical dangers and the unfair competitive advantage of having biological males compete in female sports!! Not to mention the scholarships that our female athletes would miss out on when they were awarded to biological males. For some students, I understand that receiving scholarships is the only way they can attend college.

Thank you for your courtesy and cooperation!!

Trudy Tibbals, A Very Concerned Mother and Maryland resident