THE WEEKEND ESSAY

WHO GETS TO PLAY IN WOMEN'S LEAGUES?

What a blood test taught me about testosterone, athleticism, and sex.

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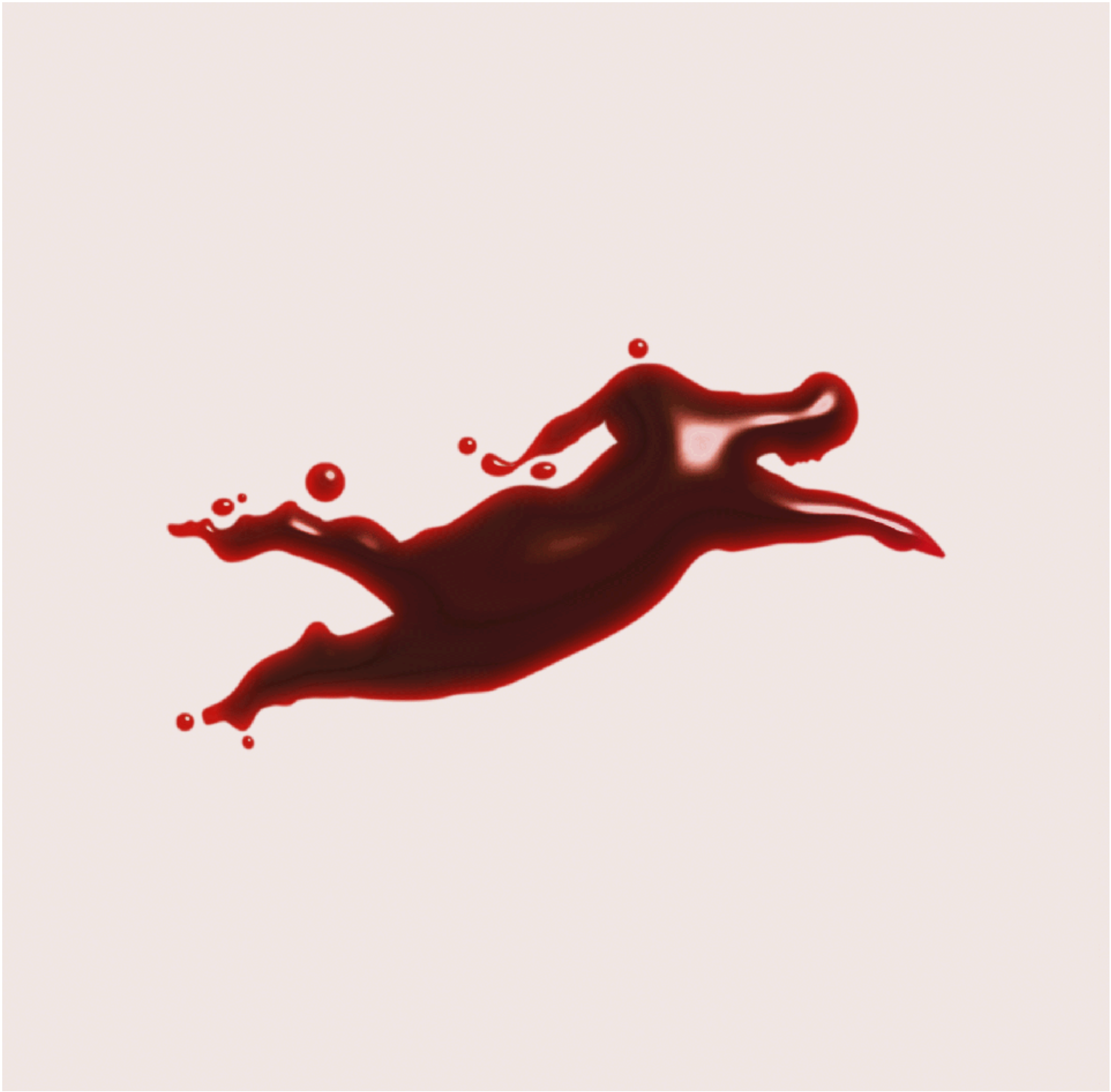

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Boulder, Colorado, where I was born and raised, is sometimes called the fittest city in America. Septuagenarians go skiing before work, high-school delinquents hang out at the climbing gym, and people do not so much hike as

trail *run*. Every year, the town hosts the BOLDERBoulder, one of the largest road races in the country and a sort of festival day in honor of the local god of exercise. I first ran the ten-kilometre course when I was six, not an unusual age of initiation for locals, and discovered that I was a bizarrely good runner. Three years in a row, I finished first out of some four hundred girls my age, and fifth or sixth out of a similar number of boys. At twelve, the last year I raced, I ran what was then the sixth-fastest time ever recorded by a twelve-year-old girl in the race's three decades of results. My parents were baffled. This was no gene of theirs, surely, but it also didn't seem to be hard work. I didn't care about running, and I never trained.

What I did work at, harder than I have worked at anything since, was soccer. Colorado's Front Range produces many excellent soccer players—all of the United States' goals in last summer's Women's World Cup were scored by players who grew up within an hour's drive of Boulder—and the great disappointment of my cushy childhood was realizing that I was not to be one of them. I failed, year after year, to make the local club's first team. I made my high school's varsity team as a sophomore but didn't start a game until I was a senior. If you had asked me at fifteen if I would rather be a little better at soccer or one day find true love, I wouldn't have paused to think. I didn't dream at night of love but of wide green spaces, well-timed tackles, and chipped shots.

The other dream of my youth, which I did not then see as bearing any relation to athleticism, was to be rid of my acne. From puberty on, it wavered between demoralizing and disfiguring. At the end of college, I finally got on Accutane, which left me with a toxified liver and—for two glorious years—the skin of a baby. Then the acne came back, worse than ever. It looked like I had picked a fight with a wasp's nest and lost. In the fall of 2022, I moved to Mexico City and saw a dermatologist there. I wanted another round of Accutane, liver be damned. She agreed, all but wincing, that the situation was dire, but insisted that hormonal causes like polycystic ovary syndrome, or P.C.O.S., first be ruled out. This was

annoying: the blood tests were expensive, and several American dermatologists had explained to me that hormonal acne fluctuates over the menstrual cycle, whereas mine stayed bad all month long. But I was desperate, and I did as she said.

A week later, the blood tests came back. In a one-room office in downtown Mexico City, a grandmotherly gynecologist who called me "hija" and my breasts "mamas" explained that I had a condition called hyperandrogenism: an excess of the sex hormones associated with men, including testosterone, and very likely the cause of the past decade of acne. My estrogen levels were considerably lower than those of most premenopausal women; they were typical of prepubescent children of either sex. My free-testosterone levels—one of three forms of the hormone—were well above the usual female range. In most women my age, the concentration of androstenedione, a precursor to testosterone, is between thirty and two hundred and eighty-five nanograms per decilitre. Mine was six hundred and twenty. It was all the weirder, the doctor said, because for years I had been on hormonal birth control, which tends to suppress androgen levels.

I received all of this in rapid medical Spanish. There was a processing lag, and then shock and something like fear. I remember nodding a lot, and wanting to cry. But I had never identified as anything other than a girl or a woman, and, after five minutes' dazed reflection, I saw no reason why a blood test should change that.

And what a relief to know that my acne stemmed not from, say, sins committed in a previous life but from something as blameless and adjustable as hormones. The kindly doctor suggested three medicines: a dietary supplement, a new birth control containing drospirenone, and a pill called spironolactone. This last, I happened to know, is prescribed to trans women in the U.S. as a component of hormone-replacement therapy. I would learn that it can also be used alongside birth control by intersex women who must lower their total testosterone levels in order to compete in certain élite sports.

Like many other longtime followers of women's sports, I had in the past few years watched the debate over the sex line grow—surreally—from a debate among fans of women's track to a national wedge issue. "If you take out a loan, you pay it back," Tim Scott said this year during the first Republican primary debate. "If you commit a violent crime, you go to jail. And, if God made you a man, you play sports against men." This summer, Nikki Haley called "biological boys playing in girls' sports" the "women's issue of our time."

Before my blood tests, on the rare occasions when I considered my stance on the issue, I had viewed myself as a member of the putative victim group—sports-playing cis women who really like to win—even as I was not particularly afraid that increased gender diversity would destroy women's sports as we know them. (Anyone who thinks that legions of men will declare themselves women only to compete in an easier division is, I think, missing something crucial about the nature of masculine pride.) After the blood tests, I was still sports-playing, still cisgender, and still tediously competitive. But now, in a sporting world that increasingly divided the sexes based on hormone levels, I was less sure about who was the threatened and who was the threat.

The rationale for separating men and women in élite sports is well established. Across many sports with quantitatively measurable results, the best men perform between nine and twelve per cent better than the best women. In sports that rely on explosive strength, the sex gap is even bigger: a fifteen-year-old boy has jumped farther than any woman on record. Male athletic superiority is not absolute—women are better at very long-distance swimming, for example, and a Brazilian woman named Maya Gabeira surfed a bigger wave than anyone else in the 2019-20 season. Nor does it hold true across time: improvements in nutrition, equipment, recruitment, and training have led the best women today to run as fast as the best men did a hundred years ago. But, among contemporaneous athletes, the pattern of dominance is uncontroversial. The United States Women's National Soccer Team, to my abiding shame, once lost, 2–5, in a scrimmage against teen-age boys on an F.C. Dallas developmental team.

The hard question for sports administrators, then, is not *whether* to have a sex line in élite sports but how, exactly, to distinguish between brawny but nevertheless "legitimate" women and dishonest male infiltrators. This proved, as early as the nineteen-thirties, to be difficult. Joanna Harper recounts in "Sporting Gender," a lively history of intersex and trans athletes, that the best runners in the women's

division at the time tended to be bulky and sharp-jawed; they had gravelly voices and, as an added strike, often were not married. Helen Stephens, Stella Walsh, and Käthe Krauss, respectively the gold, silver, and bronze medallists in the hundred-metre sprint at the 1936 Berlin Olympics, all faced suspicion around their sex. The fourth-place finisher, a German teammate of Krauss's, complained that she was "the only woman in the race."

At the time, it was not unheard of for a top American athlete to allay suspicions about her sex by adopting more feminine dress or entering into a marriage of convenience. (Sex and sexuality were often conflated.) Stephens, who would later have a forty-year partnership with a woman, defended herself by suggesting that she was attractive to men: she liked to tell a story about the Olympic host, Adolf Hitler, grabbing her ass. "Helen is absolutely a girl," Stephens's mother told reporters, adding that she "attends dances regularly at college." On the other hand, Walsh, who was also a lesbian, did not keep up with such feminine niceties as shaving her legs. "I am not beset by the temperamental tempests which women are supposed to have," she reportedly said.

Decades later, Walsh, who spent the rest of her career coaching kids in Cleveland, would be killed in a parking-lot robbery. The autopsy results, which were leaked, revealed that she had atypical genitalia: a hole in the perineum for urination, but also small testes. Further testing showed that she had what is called a mosaicism of chromosomes: in her case, some cells with a single X chromosome and others with XY. Walsh's ex-husband, whom she had married in order to switch her running eligibility from Poland to the United States—they divorced after three months—later told journalists that they'd had sex infrequently, and only with the lights off. A close friend described Walsh as "a self-conscious woman" who "lived a tragic life."

When the details of Stella Walsh's biology were revealed, they were seen by many as evidence of clear-cut cheating. They interest me today not for that reason but because they highlight the difficulty of determining biological sex through either

external genitalia or chromosomes. The penis and clitoris exist along a spectrum of length, and the labia can be fused shut or the scrotum split, leading to ambiguity in determining sex at birth. Our chromosomes carry the recipe for our genitalia—XX codes for a vagina and ovaries, XY for a penis and testes, other combinations for a variety of outcomes—but, like any other recipe, the result depends on the availability of ingredients, in this case androgen hormones.

Some people with XX chromosomes and excess androgens are born with such an enlarged clitoris that they are assigned male at birth. Other people with XY chromosomes and a gene that delays the ability to process androgens are assigned female at birth, only to grow a penis and have their testes drop during puberty. Still other XY people are never, or are only partly, able to process androgens—they can have both undescended testes and a vagina. Many of this last group do not notice that they are different from other women until they fail to menstruate. Young élite athletes, whose periods can be delayed from intense training, may not notice even then.

All told, differences of sex development are rare but not vanishingly so. About one in every three hundred and fifty people has nonstandard sex chromosomes, and about one in every thousand has atypical genitalia. In élite sports, which select for many rare qualities, these rates can be much higher. At the 2011 World Athletics Championships, for example, women with XY chromosomes were overrepresented by a factor of a hundred and forty.

As Lindsay Pieper details in "Sex Testing," a history of gender policing in women's sports, the presence of women athletes was, for sports administrators, a long-standing fly in the ointment. "I am fed up to the ears with women as track-and-field competitors," said Avery Brundage, the 1936 chaperone of the American team and later the president of the International Olympic Committee (I.O.C.). "Their charms sink to less than zero." He and his colleagues were further alarmed by news reports about Mark Weston and Zdenek Koubek, two athletes who had competed in the Women's World Games and since transitioned to live as men. (We now know both to have been born with atypical genitalia.) Sports bureaucrats began to write to one another about their responsibility to the "100 percent girls."

When global sports returned after the war, their rulers were no longer willing to outsource a genital check to athletes' irritatingly scarce husbands and boyfriends. Both the I.O.C. and the International Athletics Association Federation (I.A.A.F.), which oversaw track and field, required participants in the women's divisions to show a doctor's certificate testifying to their genital makeup. In 1966, amid growing (and, for the West, politically embarrassing) success by Soviet and East German athletes, the organizers of tournaments were no longer willing to outsource the check to nationalistic, steroid-pushing team doctors. The result was in-house sex tests, colloquially known as "nude parades." According to Pieper, who drew from the accounts of élite athletes and the correspondence of sports administrators of the time, doctors visually inspected the genitals of athletes and, in at least one track tournament, also manually manipulated them.

Predictably unpopular, the nude parades were short-lived. In 1967 and 1968, the I.A.A.F. and the I.O.C. turned instead to a cheek-swab chromosome test. Athletes who showed XX chromosomes were given what some referred to as a "fem card," a passport that was worn around the neck and checked before events. Those who showed any other chromosomes, or a mosaicism of chromosomes, were at times advised to fake a last-minute injury and to quietly retire from sports. The exact number of world-class athletes whose careers ended in this way in the following decades is not publicly known, but it could be in the dozens. Many of these athletes had never considered that they might be anything other than a woman: as Pieper describes, they learned in the same breath that the medical establishment did not consider them female and that their careers were over.

Kirsten Wengler, a collegiate American swimmer who has an unusual protein structure that yielded a Y-chromosome test result, initially thought that the decision not to give her a fem card was a joke. Wengler's parents, who were doctors, pushed for further testing, and the mistake was cleared up. One of a very

few others not to go quietly was María José Martínez-Patiño, a Spanish hurdler who, in 1985, was shocked to learn that she had XY chromosomes. Her body's complete insensitivity to androgens had left her with a typical female appearance. At first, she heeded advice to feign an injury, but when she later decided to run anyway, her medical records were leaked, revealing that she had undescended testes. Her fiancé left her, and she was barred from the women's athletic dormitory. She was eventually allowed to compete again, but only after an experience of medical invasion and media scrutiny that she compared to rape. "I could hardly pretend to be a man; I have breasts and a vagina," she later wrote. "I never cheated."

Cheek-swab chromosome tests remained generally popular among female athletes. A survey at the 1994 Olympics found that eighty-seven per cent of those tested found such testing necessary and thirteen per cent believed that they had previously competed against a male in disguise. But geneticists, aware of the tests' false positives and negatives and of the prevalence of chromosomal diversity, were

alarmed. In 1987, the co-inventor of the cheek-swab test wrote a letter to an Olympic administrator calling this application of his test "inappropriate" and "an embarrassment to me." Pieper reports that more criticism came from human-rights activists and feminists. A 1996 conference on women in sports ended in a resolution, endorsed by world leaders such as Hillary Clinton and Benazir Bhutto, that urged the I.O.C. to "discontinue the current practice of gender verification."

More than a half century of testing in international women's sports had not confirmed a single publicized case of a competitor who was considered male in both chromosomes and genitalia. But it had deterred athletes who were afraid that they would be accused, however incorrectly, of being male. Some local and national sporting bodies, unwilling to waste time developing athletes who would later be found ineligible at the higher levels, conducted their own chromosome testing. A Finnish geneticist who championed Martínez-Patiño's cause complained that such trickle-down testing had caused "hundreds, if not thousands" of "perfectly normal-looking young ladies" to be "silently shuffled aside" from a life in sports.

For the 2000 Sydney Olympics, the I.O.C. ended the use of chromosome tests. This did not actually mean an end to sex testing but only a return to older forms of it. Anti-doping rules required Olympic and I.A.A.F. officials to actually watch the pee leave the athlete's body, allowing them to perform a surreptitious genital check. The nude parade was back, now rhetorically sanitized as a "health check," and helpfully insulated against charges of sexism, because men had to do it, too. Administrators of international sports also reserved the right to conduct further sex testing in what they deemed suspicious cases. In practice, this meant those "ladies" who were not "perfectly normal-looking."

Caster Semenya, a South African sprinter who won Olympic gold in the eight hundred metres in 2012 and 2016, was once described by this magazine as "breathtakingly butch." As a child, she was regularly accused by running

opponents of being a boy; to buck the rumor, she would go into a bathroom with a member of the opposing team and pull down her pants. Like Martínez-Patiño, Semenya has XY chromosomes and both a vagina and undescended testes. But, whereas Martínez-Patiño's body was completely unable to use the testosterone produced by her testes, Semenya's body is able to use some. The questions of just how much Semenya can use, and just how much anyone in the women's division should be allowed to use, have in the past decade led to trials before the Court of Arbitration for Sport and the European Court for Human Rights. Having tried and failed to draw a line between men and women via external genitalia or chromosomes, the rulers of sports are now trying to do so with hormones.

As a dividing line in sports, testosterone makes a certain amount of sense. Unlike external genitalia, it plays some role in athletic ability—steroids, for example, are just synthetic testosterone—and it is unusually sex-dependent: the average man has fifteen times the total testosterone of the average woman. But testosterone is not a perfect measure of either athleticism or sex. One study found that some male Olympians have testosterone in the typical female range, just as some female Olympians have testosterone in the typical male range. The I.A.A.F. itself found that, in more than half of the running events it studied, women with lower testosterone are faster than those with higher testosterone. And, within a single person, testosterone level fluctuates—it is highest in the morning, and is affected by both exercise and the rush of competition.

In 2011, prompted by Semenya's case, the I.A.A.F. set an upper limit on testosterone for athletes in the women's league. In 2018, the organization halved that limit and specified that it applied only to athletes that the I.A.A.F. considered or suspected to be intersex, and only in certain events (including those in which Semenya competed). This year, the I.A.A.F., now rebranded as World Athletics, once again halved the upper limit, to two and a half nanomoles per litre. This amount of testosterone can also be present in, say, women with P.C.O.S., but the rule does not apply to them. Athletes are required to medicate only if their

testosterone is deemed to have a "material androgenizing effect," a judgment that can be made on a case-by-case basis. In theory, the selective applicability of the rule is meant to target athletes who have experienced something like the male athletic advantage—the improved heart function, oxygen availability, muscle growth. In practice, it means that two women can have the same testosterone level and perform equally well, but only one who has an intersex trait will be required to lower it.

Critics have complained that this is the policing not of athleticism but of femininity. World Athletics begs to disagree. "The regulations exist solely to ensure fair and meaningful competition within the female classification, for the benefit of the broad class of female athletes," several recent press releases explain. "In no way are they intended as any kind of judgment on or questioning of the sex or the gender identity of any athlete." In other words, sporting groups will no longer decide if you are a woman, only if, as a certain type of woman, you are too good to compete against others.

On the one hand, the sporting world's shift away from trying to define sex strikes me as a promising sign of humility. On the other hand, the notion that an otherwise eligible athlete—in this case, someone whom the league recognizes as a woman—can be disqualified or disadvantaged simply for having too great a natural gift is without precedent. Past a certain level, all élite athletes are freaks of nature, genetic aberrations: they worked harder and wanted it more only compared with the very limited group of people who had the physical capacity to beat them. Anybody who has tried very hard to be great at a sport knows this, and knowing it does not make watching sports any less moving. Nor do fans tend to support ceilings on individual greatness, no matter how lucky or rare the trait that drives it. An American man who is seven feet tall has a staggering one-in-six chance of making it to the N.B.A., but we do not require him to play hunched over.

Defenders of testosterone limits dislike such analogies. The N.B.A., after all, is an open league: it is meant to bring together the best in the world. The W.N.B.A., in contrast, is a protected league: it is meant to bring together only the best *women* in the world. If an athlete has traits that approximate the athletic advantage of a post-pubescent boy or man, the argument goes, then, regardless of her gender identity and sex, as both she and scientists may understand it, she should have to compete against men.

The problem with this is that many great female athletes have traits that approximate the athletic advantage of the average man. They may be taller and have broader shoulders, or have less body fat and more muscle, smaller breasts and thinner hips, greater lung and heart capacity and a higher hemoglobin count. This is inevitable—in any protected class, the biggest beneficiaries will be those who least need the protection. We would expect the best eleven-year-old boys to be those who are physically most like the best thirteen-year-old boys. (The performance gap between these two groups is, like that between the best men and women, around twelve per cent.) And we would hardly throw out an eleven-year-old's age-group win because he happened to have been lucky enough to already go through puberty, even if puberty is exactly the phenomenon that leads in the first place to the divide between eleven- and thirteen-year-olds.

If sports administrators are to draw the line not at what they consider maleness but at male athletic traits, it would be arbitrary to either start or stop at the policing of testosterone, which influences only some of these traits and appears to give competitors a significant advantage only in some sports. Intersex women are thought to have a particular advantage in some track events. (All three women who medalled in the eight-hundred-metre Olympic race in 2016 have since said publicly that, in order to continue running, they would have to lower their testosterone.) But a trait like height, which is not determined by testosterone, confers a particular advantage on women's-volleyball players. Compared with the average American woman, those on the national volleyball team are two hundred and sixty-seven times likelier to be more than six feet tall. Does this constitute fair and meaningful competition for a broad class of female athletes? And, if not, is that a problem? Is the difference simply that testosterone, and not height, can be adjusted?

An odd thing about testosterone's being changeable is that it puts the interests of intersex women and trans women partly at odds. If, after surveying the research, you think that someone's current level of natural testosterone does not determine their athletic potential—or, at least, that it does so only as much as other, allowable, advantages—you will oppose rules that require intersex athletes to medicate. (Semenya, for example, has called her talents God-given and condemned World Athletics' efforts to "poison" her.) If, on the other hand, you conclude that current testosterone levels should determine the division that an athlete competes in, then you would logically oppose the inclusion of unmedicated intersex athletes and support the inclusion of trans women who have lowered their testosterone to the typical female range.

In other ways, support for the inclusion of intersex women athletes can encourage support for trans women athletes. If you were asked to define the sex of someone who has a vagina but no ovaries, testes but no penis, XY chromosomes but a

limited or absent ability to process testosterone, you might be curious as to that person's own sense of themself. You may find it relevant, for example, that María José Martínez-Patiño and Caster Semenya *believe* themselves to be female, that they cannot "pretend to be a man." And if, in the case of intersex athletes, you believe that a person's convictions about their sex can inform what league they play in, then it would be arbitrary not to extend such a belief to trans people.

Just as the past decade of hyperandrogenism regulations can largely be attributed to Semenya's success, the past two years of regulations around trans people in sports can be linked to the success of the swimmer Lia Thomas. Her highly publicized story—Fox News alone has mentioned Thomas in more than six hundred articles—is by now well known. Recruited to the University of Pennsylvania's men's swim team, she competed on it for two years, recording, as a sophomore, the team's top times in the five-hundred-, thousand-, and sixteen-hundred-and-fifty-yard freestyle events. In 2019, she came out to her team as trans, and for a year after that continued to compete against men while undergoing hormone therapy. N.C.A.A. rules at the time required trans women to do one year of testosterone suppression before competing with a women's team; Thomas, who like many college athletes missed a year during COVID, did two.

The effects of hormone-replacement therapy (H.R.T.) on athletic performance are poorly studied, but existing research on transgender athletes suggests that they vary from sport to sport. Data collected by Joanna Harper found that testosterone suppression was remarkably effective at removing a sex-based advantage in long-distance running, and data collected from the army fitness test found that two years of H.R.T. removed the advantage in pushups and situps, and halved the advantage in the mile-and-a-half run. But adult H.R.T. does not greatly affect height or hand size, which can influence other forms of strength: another study that looked at trans women with an average of eight years of testosterone suppression found that their average grip strength—one of the most sexually

dimorphic traits—was much lower than that of cis men but still much higher than that of cis women.

Thomas softened and lost muscle mass. She felt herself losing wind more quickly, and her times grew substantially: in the five-hundred freestyle, her best event, she gained fifteen seconds. Even with the slowdown, however, she was still placing better among women than she ever had among men. In her sophomore season, she was sixty-fifth nationally among men in the five-hundred freestyle; as a senior —now three years older, because of her year off during the pandemic—she finished first among women in the N.C.A.A. finals. At the same finals, she placed fifth in the two-hundred freestyle, and last in the hundred freestyle. Many news stories reported only on her victory.

The public perception of the inevitable dominance of trans women stems partly from this kind of news bias: trans athletes don't attract attention when they lose, or, if they do, they are accused of throwing the race. Such a perception may also be amplified by a tendency among men to overestimate how they would fare against professional women. Twelve per cent of British men, for example, think that they could take a point off Serena Williams; fewer than two per cent regularly played tennis last year. But it is simply not true that trans women will always beat cis women. For every Lia Thomas, there is, for example, a Renée Richards, a trans woman who in 1977 successfully sued for the right to play in the women's division of the U.S. Open and then lost her first singles match in straight sets. (Her opponent was the eventual champion, Virginia Wade, and Richards did make it to the final in doubles.) And, for every Renée Richards, there are many amateur trans women playing against cis women in the local Frisbee league or at the queer soccer game and not ruining anybody's day.

For opponents of trans athletic inclusion, however, even a single successful trans woman threatens to break the dam and destroy women's sports as we know them. It is no good to point out that American tennis has been open to trans women since 1977, the Olympics since 2003, and the N.C.A.A. since 2010; that not a single trans girl is known to have been awarded a college athletic scholarship at the expense of a cis girl; or that the first American to make an Olympic team consistent with their gender identity after transitioning was actually a trans *man*, the triathlete Chris Moser. The historic lack of success of trans women in sports, both sides should be able to acknowledge, stems at least in part from the twin gatekeepers of hatred and discrimination. Now that enough people object to making the life of trans people a living hell, the argument implicitly goes, who knows what might happen?

Given the past few years of regulations, probably nothing. In June of 2022, World Aquatics, the international governing body for swimming, announced that trans and intersex women could compete only if they could prove that they had never experienced the onset of testosterone-driven puberty, a decision that ended Thomas's career. This approach has now also been taken by World Athletics, World Rugby, and the Union Cycliste Internationale. For the sporty trans kids who would like very much to avoid testosterone-driven puberty but who live in

one of the twenty-one states where legislators have voted to make puberty blockers illegal, such decisions present a particularly infuriating Catch-22. But for activists working against trans inclusion, such total bans are the only end goal. Support for this position comes from unexpected places. Richards herself has come to regret her own groundbreaking lawsuit. “There is one thing that a transsexual woman unfortunately cannot expect to be allowed to do,” she says, “and that is to play professional sports in her chosen field.”

Imagine, for a second, that you are the ruler of sports. How much success from intersex and transgender girls and women are you willing to accept? If your answer is little to none, are you willing to make rules that risk discriminating based on an athlete’s appearance? If not, how many “perfectly normal-looking young ladies” are you willing to sweep up in your ineligibility net? Would you accept it if trans women, who represent about one in three hundred American women, win one in three hundred women’s competitions? If they win one in a thousand?

Personally, I would not like to live in a world where a trans girl or woman *never* wins a women's-division sporting event at any level. In twenty-four American states, however, legislators have attempted to do just that, by banning trans inclusion in school sports. Many of the laws passed in recent years extend to sports in elementary school, before most students have reached puberty, and to intramural sports at public colleges, which are often coed anyway. State lawmakers have attempted to pass high-school-sports bans that, at the time they were proposed, would have affected a single transgender girl. One student in Ohio who would have been excluded was Ember Zelch, a backup catcher for a high-school softball team that had so few players that it couldn't even field a junior-varsity squad. She had already submitted the proof of testosterone suppression required by Ohio law; the proposed law, had it passed, would have also subjected her to a genital examination.

Other recent laws require that kids play in the league of the sex they were assigned at birth. One effect is that trans boys, who are sometimes taking testosterone, are legally required to compete against girls even when they and their opponents would rather they play with the boys. Mack Beggs, a trans boy in Texas, won two girls' wrestling state championships while stating publicly that he would prefer to wrestle boys. He was mentioned by name multiple times in the Texas state legislature; the parents of other wrestlers called him a cheater; and several girls forfeited rather than face him. In "Fair Play: How Sports Shape the Gender Debate," Katie Barnes recounts that even when Mack was finally allowed to wrestle boys, he was still booed. "What do they want?" he said to his grandmother. "Why is there such anger now?"

Back in Mexico City, the androgen-suppressing medicine that I was prescribed had an immediate and very welcome effect. My acne cleared up in three months, but the pills did not stop there. Weight seemed to melt off my upper body, revealing for the first time a tuck in my waist, and stretch marks appeared on

my hips and thighs. I lost twenty pounds but needed to buy bigger underwear. Even when exercising, I find that I no longer have to use deodorant.

Such changes have not, as far as I can tell, hurt my soccer performance, though for reasons of limited urban space I now play only "Fútbol Rápido," a five-a-side futsal that rewards technical skill and vision more than either strength or sprint speed. (In my belligerently competitive mixed-gender league, cis women are currently the top two leading goal scorers.) I do tire more easily than I used to, though I'm not sure how much of that to attribute to changing hormones, and how much to Mexico City's altitude and pollution. Nor am I sure that my unusual hormones contributed to my little-kid race times. Although my Mexican gynecologist did not make this claim, an American doctor has told me that my hyperandrogenism is associated with P.C.O.S. In this case, the testosterone would come from ovarian activity, and the ovaries generally do not get up to much before puberty.

Given the United States' extreme politicization and even criminalization of hormone therapy for trans people, I was curious how the Americans in my life would react to the news of my taking some of the very same drugs. Of course, I wasn't taking the pills for reasons of gender dysphoria, but my motivation—a shame that sometimes kept me from going outside—did not strike me as entirely different. When my acne was at its worst, I thought of little else. I avoided new people—dating was out of the question—and brushed my teeth in the shower to avoid seeing my face in the mirror. It turns out that the desire to treat this kind of pain with hormones is less controversial when it comes from a cis woman. A family friend who has expressed concerns about puberty blockers congratulated me on my self-advocacy and clear skin, before raving about how estrogen had helped her through menopause.

Such selective concern is not unique. There is a widespread outrage over the very rare genital surgeries for trans teens, but not over the medically unnecessary genital surgeries to "normalize" intersex infants. Top surgery for trans teens is controversial; breast reduction for cis teens—the average patient is eighteen—is not. We are not scared of the medicine itself, its risks and irrevocability. We are scared that it might be used to subvert rather than enforce our sex as assigned at birth. And we are not, I think, as scared of minor eligibility changes in women's sports as we are of the prospect of freeing ourselves from the mandate of fixed, binary sex.

Recently, I returned for a checkup with the same gynecologist. It had been a year since I was diagnosed with hyperandrogenism, and a new round of blood tests showed that although my estrogen remained merely hypothetical, my testosterone levels were back within typical limits, and my androstenedione was down by fifty per cent. The gynecologist scanned me to see how my secondary sex characteristics had changed. She marvelled at the bruising that soccer had left on my legs—if I landed in a Mexican public hospital like this, she said, I would trigger an alert for gender-based violence. Then she examined my patterns of body

hair. I turned around, lifted my arms, got into the stirrups. Finally, she nodded approvingly. "Now you're almost all feminine," she said, "except for your kick." ♦

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S. C. Cornell is a writer based in Mexico City.

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