

Twitter Thread by Emma Hilton



Emma Hilton

[@FondOfBeetles](#)



@BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64
OK.

Fitness data from over 85k AUS children aged 9–17 yrs showed that, compared with 9 yr females, 9 yr males were 9.8% faster in sprints, 16.6% faster over 1 mile, could jump 9.5% further, could complete 33% more push-ups in 30 s and had 13.8% stronger grip.

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 Here is my full description of that data.

Example:

1.6km timed run (CV endurance)

The *best* 17 yr old girls are matched by *average* 17 yr old boys, and beaten, by some measure, by the best 9 yr old boys.

<https://t.co/ycnzTvCke7>

Here is summary data from Catley and Tomkinson, 2012, who collated performance data from 85347 Australian schoolchildren aged 9-17 years old. pic.twitter.com/qKdxqywpoq

— Emma Hilton (@FondOfBeetles) [November 19, 2020](#)

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 Male advantage of a similar magnitude was detected in a study of Greek children, where, compared with 6-year-old females, 6-year-old males completed 16.6% more shuttle runs in a given time and could jump 9.7% further from a standing position.

<https://t.co/v9s9fCVqJN>

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 In terms of aerobic capacity, 6- to 7-year-old males have been shown to have a higher absolute and relative (to body mass) VO2max than 6- to

7-year-old females.

<https://t.co/V6eYdFp78X>

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) Pre-puberty performance differences are not negligible, and could be mediated, to some extent, by genetic factors and/or activation of the hypothalamic–pituitary–gonadal axis during the neonatal period, sometimes referred to as “minipuberty”.

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) Genetics: some 6500 genes are differentially expressed between males and females [19] with an estimated 3000 sex-specific differences in skeletal muscle likely to influence composition and function beyond the effects of androgenisation.

<https://t.co/sumf8qKqBa>

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) Minipuberty: increased testosterone during minipuberty in males aged 1–6 months may be correlated with higher growth velocity and an “imprinting effect” on BMI and bodyweight.

<https://t.co/03mM3dTHMv>

<https://t.co/NcaBCJA20m>

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) You suggest we “make an exception for trans girls and women who’ve never experienced male puberty”.

It's clear that pre-puberty advantage exists.

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) You then suggest that testosterone rules are a reasonable accommodation.

What is the NCAA's testosterone rule? Threshold level? For how long? And how do they test athletes?

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) Please find this review of the effects of testosterone suppression in post-pubertal males.

<https://t.co/GseD8W2rUp>

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) “[S]uperior anthropometric, muscle mass and strength parameters achieved by males at puberty, and underpinning a considerable portion of the male performance advantage over females, are not removed by the current regimen of testosterone suppression permitting participation [...]”

[@Hogshead3Au](#) [@BARBARABULL11](#) [@boysvswomen](#) [@cbrennansports](#) [@Martina](#) [@devarona64](#) “Rather, it appears that the male performance advantage remains substantial.”

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 "The reductions observed in muscle mass/size/strength are very small compared to the baseline differences between males and females in these variables, and thus, there are major performance/safety implications in sports where these attributes are competitively significant."

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 "These data significantly undermine the delivery of fairness and safety presumed by the criteria set out in transgender inclusion policies, particularly given the stated prioritization of fairness as an overriding objective (for the IOC)."

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 How is T suppression a "reasonable accommodation"?

It may close the baseline gap in sports heavily relying on endurance (distance running) but it barely scratches the surface of strength differences, a factor in most sports.

And, obviously, it doesn't reduce skeletal advantage.

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 You say "When it's possible to include trans girls and women in ways that enhance their health and well-being and don't defeat the goals of girls' and women's sport, that should be done."

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 I agree. Nobody should be excluded from sports.

But it's difficult to argue that inclusion of males in female sports can ever be fair (and on occasion, it's dangerous).

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 So, recreational sports?

I don't know what you are picturing here but I play a recreational sport in both female-only and mixed sex leagues. It's a social and exercise activity, no competitive goals.

That?

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 The premise that rec sport is non-competitive, which I assume you think might make performance difference irrelevant and/or reduce injury risk etc, is naive.

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 I play a non-contact sport, and even there, in non-aggressive 'all buddies' play, clumsy contact happens. We don't have the technical skills of a national team ■■■■

I've been accidentally elbowed, shoved, landed on and stepped on by both females and males. One hurts more.

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 In fact, one might argue that within lower skilled games (rec sport), injury risk is higher because people are less proficient at safe contact (or

maintaining no contact).

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 It's difficult to understand, say, why safety rules designed to protect elite female rugby players would not apply to rec players. Aren't those females worth protecting?

You also assume that rec sport is not a pathway to competitive sport for females.

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 The argument for inclusion in rec sport is centred on consent. Most people play recreationally because they want to, not because it's their only opportunity.

I consent to playing with males. And I have the option to not play in a mixed league if it no longer works for me.

@Hogshead3Au @BARBARABULL11 @boysvswomen @cbrennansports @Martina @devarona64 I will end, because I'm boring everyone. Just to note as an aside that in my mixed games, male participation is limited positionally.