

THE GROWTH SPURT

What is the growth spurt?

Adolescent growth spurt is the fast and intense increase in the rate of growth in height and weight that occurs during the adolescent stage of the human lifecycle. It occurs in all the long bones and most other skeletal elements of the body.

Typically, the pubertal growth spurt begins on average at 9–10 years for girls and 11–12 for boys.

However, there is considerable variation between individuals and populations.

The peak growth rate as well as the duration of this spurt is greater for boys than for girls, and this accounts for the average difference of 11–13cm in height between adult males and females.

Why does it matter?

During the growth spurt, particularly during time of rapid growth, there are plausible links to the development of activity/sport-related injury, which can manifest themselves in many different ways.

These include growth-plate issues, challenges with flexibility and clumsiness and more.

Click below to find out more.

FIVE KEY TAKEAWAYS

1

The adolescent growth spurt is the fast and intense increase in the rate of growth in height and weight that occurs during the adolescent stage of the human life cycle.

2

The growth spurt begins on average at 9–10 years old for girls and 11–12 for boy, but this can vary greatly between individuals and populations.

The peak growth rate, as well as the duration of this spurt, is greater for boys than for girls. This accounts for the average difference of 11–13 cm in height between adult males and females.

3

The phases of rapid growth development can predispose adolescents to injury. There are many theories as to why this may happen, such as awkward or clumsy movement patterns during this phase, reduced flexibility, reduced ability to adapt sporting workloads, and increased vulnerability to the absorption of and adaptation to mechanical loads from training and competition.

4

Tracking the phases of the adolescent growth spurt, particularly peak height velocity, is valuable to help identify modifiable risk factors for injury.

5

During rapid periods of growth, modifying training and competition load to reduce the mechanical stresses on the body and increasing recovery times and strategies (e.g. rest, sleep and nutrition) can have a significant reduce the risk of sport injury.