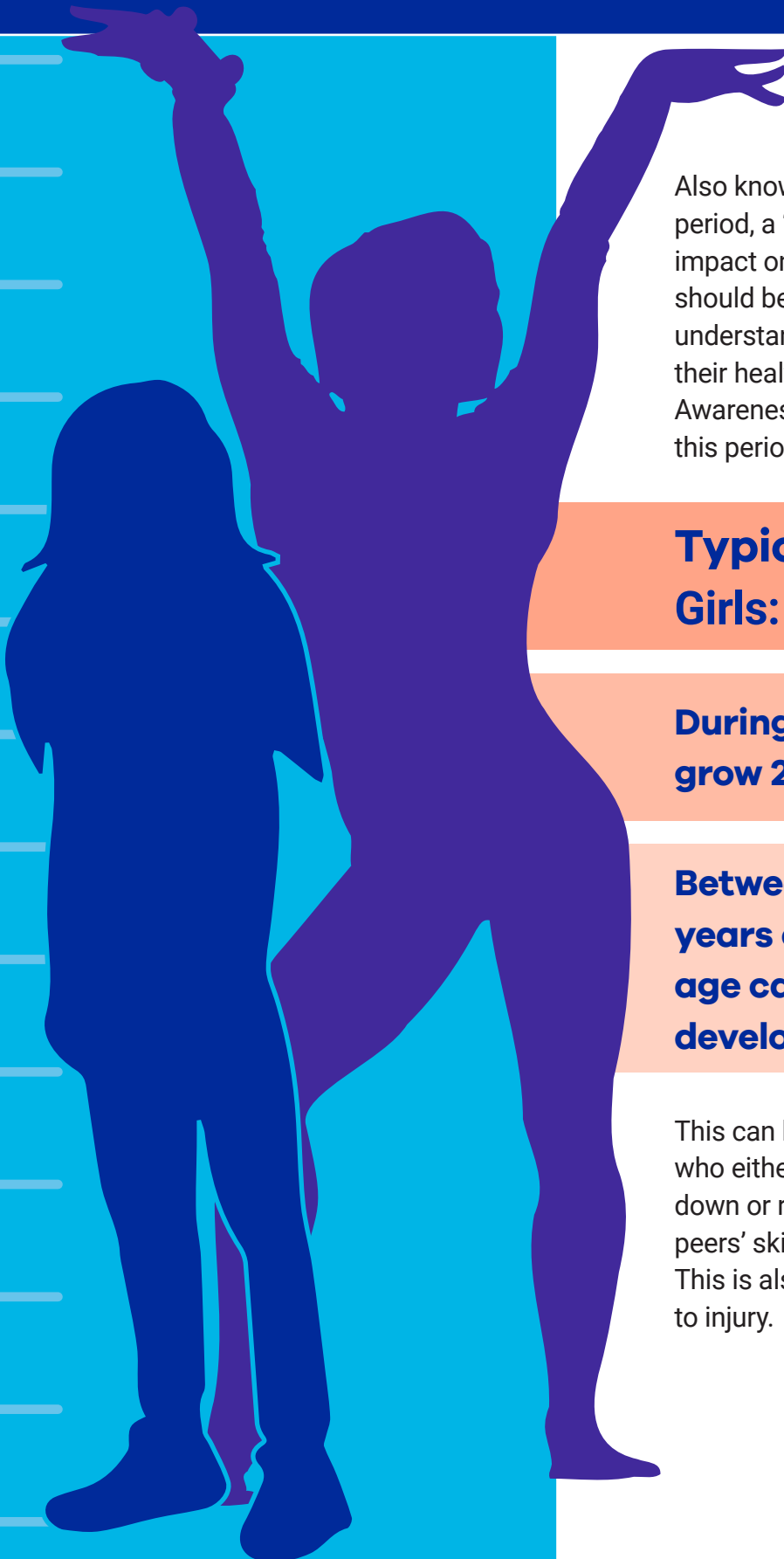


THE IMPACT OF A GYMNAST'S GROWTH SPURT



Also known as the “**Peak Height Velocity**” (PHV) period, a “growth spurt” will have a significant impact on a gymnast. This is **NORMAL** and should be expected. Helping gymnasts understand this can have a positive impact on their health and their progression in the sport. Awareness and prevention are essential during this period of growth.

Typical Age of PHV

Girls: 9 - 14 • Boys: 11 - 16

During PHV, athletes will grow 2-5 inches per year!

Between the ages of 10-16 years old, athletes of the same age can be 4-5 years apart developmentally.

This can be really **FRUSTRATING** for athletes who either see their skill development slow down or regress during PHV or who see their peers' skill development soar past their own. This is also a time when athletes are more prone to injury.

Here are a few things to expect during this time

Physical Impacts:

- In girls, height comes first, then weight gain, then muscle gain. Girls will typically gain more fat mass before gaining muscle
- In boys, height, weight, and muscle gains occur at the same time
- Increased joint laxity in girls
- Decreased flexibility in boys
- Increased agility, balance, power, speed
- Decrease in coordination
- Decreased bone density precedes PHV=increased risk of fracture
- Increased risk of injury due to temporary decrease in bone density, changes in flexibility, increased weight, loss of coordination

Emotional Impacts:

- Athletes may get discouraged due to loss of skills or slowing of skill progression during this time.
- Athletes may see their peers excel during times when they are struggling.
- Frequently, athletes experience their first injury during this time which can cause anxiety or feelings of depression and isolation.
- Coaches often do not adjust their expectations appropriately during this time to account for PHV

Nutritional Needs:

- Caloric needs may increase during this time
- As girls gain fat, they may be tempted to reduced caloric intake which can cause further loss of bone density or a deficiency in energy needed to do gymnastics

What you can do to help your athlete during this time

Training:

- May need to adjust training hours, reps, or intensity
- Provide adequate rest days
- Cross train to vary muscle groups
- Reach out to medical professionals for help with return to sport after injury.
- Coaches should be willing to collaborate with an athlete's medical professionals, especially to help those who are not familiar with gymnastics

Support:

- Coaches, family, teammates, and your child's medical team should all offer extra support and encouragement during this time
- Consider working with a mental health professional
- Use goal setting to set realistic and measurable goals to keep gymnasts motivated
- Avoid blaming for lack of progress, expressing disappointment in performance, or comparing to teammates who are likely developing at a different rate

Education:

- Athletes, parents, and coaches should understand the impact of PHV on gymnastics

Sleep:

- Proper sleep is CRUCIAL to physical function (performance, recovery, and healing), motivation and focus. Make sure your gymnast gets 8-10 hours of sleep every night. Sleeping in on weekends can only go so far. Every night of sleep counts!

Nutrition:

- A healthy diet with sufficient caloric intake helps with recovery and mental health.
- Help your gymnast develop a healthy diet with a good balance of carbohydrates, proteins, and healthy fats to feed their bodies and their brains.
- During PHV, it can be useful to work with a dietician to ensure your gymnast is eating an appropriate number of calories per day.
- Low levels of Vitamin D, Iron, or Calcium are associated with higher injury rates

