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