What is it?
“Apophysitis” is the medical term used to indicate inflammation and stress injury where a muscle and its tendon attaches to the area on a bone where growth occurs in a child or adolescent, an area called the “growth plate.” Apophysitis is commonly seen in active, growing children and adolescents. It can occur in many different body parts, depending on the specific repetitive activities the young athlete is commonly doing.

Causes
Apophysitis is caused by repetitive, overuse activities in growing children and adolescents, but occasionally can happen with an acute injury.

Risk Factors
• Active, growing children and adolescents.
• Rapid growth
• Inflexibility and weakness
• Young athletes who push through activity-related pain.

Symptoms
• Pain, swelling, and tenderness over a growth plate where a muscle tendon attaches. A “bump” may be noted, which may not be reversible. Common sites include the knee, heel, elbow, hip, and pelvis.
• Pain that typically worsens with activity and improves with rest.
• Pain with activity, sometimes causing a limp.

Diagnosis
A sports medicine physician may make the diagnosis of apophysitis by history, physical examination, and at times x-rays of the specific body part where there is pain. The evaluation will also include flexibility and strength of the muscle groups involved. X-rays may show an open growth plate at the location of the young athlete’s pain.

Treatment
• The mainstay of treatment is controlling the pain and inflammation related to the apophysitis, initially by reducing the amount of activity in sports, gym, or free play.
• This may include activity modification, ice, and nonsteroidal anti-inflammatory drugs (NSAIDs) or other medications.
• In severe cases, a short period of absolute rest and/or immobilization of the body part may be necessary. Surgery is rarely necessary.
• Addressing lack of flexibility and strength with rehabilitation or special exercises may be necessary prior to returning to sports.

Prevention
• Young athletes, coaches, and parents must be aware of any activity-related pain which may be related to apophysitis. Early recognition is key.
• Young athletes should not limp during or after activity. This may only worsen the degree of injury, and in turn, the duration of recovery to get back to sport.

Return to Play
• There should be minimal pain with squatting and jumping, and then a progression through sports-specific movements should be done prior to full return to sport.
• If the athlete is experiencing pain or limping during this sequence, he/she should continue his/her treatment and attempt a return to sports only after discussing this with his/hersports medicine physician.

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References