

DEEP THIGH BRUISES IN AN ATHLETE

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Have you ever read the headlines of the sports page or watched your favorite sports show and learned that a professional or college athlete was going to miss an upcoming game due to a bruised muscle? A common reaction to that news might be, "What a wimp!" Be assured, the team's certified athletic trainer and team physician take a bruised muscle seriously, as it could develop into a rare injury known as myositis ossificans.

Mechanism of injury

Myositis ossificans is an uncommon injury that typically occurs as a result of blunt force trauma to large muscles such as the quadriceps or biceps. Soccer, football, and basketball players are prone to getting hit in the quadriceps muscle with a knee or helmet. The blunt force causes the muscle to bleed, which may cause a localized collection of blood known as a hematoma. If the injury is neglected because the athlete fails to report it, or it is over-looked as a minor injury, the athlete could get hit again. Repetitive trauma causes the muscle to continue bleeding, and the accumulation of blood can begin to calcify and form bone within the muscle within three to six weeks of the injury.

Recognition of Injury

Generally, due to the bleeding in the muscle and the formation of bone, full range of motion is limited. Pain and swelling may cause limping while running or result in the athlete's inability to give his/her best effort during practices and games. Upon examination, a certified athletic trainer may feel a large mass in the muscle. The presence of blood may also make the affected muscle appear bigger. Girth measure-

ments may be taken and compared to the opposite muscle to see if there is a significant size difference. Also, because of the presence of blood, there may be an increase in warmth over the affected muscle. Athletes should be immediately referred to an orthopaedic surgeon for a more thorough examination. X-rays will reveal the formation of bone within the area of the deep contusion.

Treatment

Initially, athletes diagnosed with myositis ossificans should rest and not be permitted to participate in sports or contact activity. Therapy protocol is opposite of what athletic trainers generally try to accomplish. Usually, we want to increase blood flow to stimulate the healing process. However, treatment for a myositis ossificans injury is very conservative because an increase in blood flow can stimulate more bleeding into the muscle.

Ice and passive stretching are prescribed in the early treatment phases by most physicians. More range of motion exercises can be added to the therapy protocol as the athlete begins to improve. Half revolutions on a stationary bike or even gentle riding is a good method to increase range of motion. Heat therapy, electrical stimulation and massage should not be used as treatment since they can stimulate

blood flow.

Follow-up x-rays are important so the physician can monitor the growth of the bone mass. Over a time frame of three to six months, the bone may shrink and be reabsorbed into the body. If the bone does not shrink after a period of six to twelve months, the physician may feel it is necessary to surgically remove the bone. Surgeons wait until the bone

matures to prevent it from returning.

Return to Play Guidelines

Athletes with a myositis injury may return to play, but guidelines may vary between orthopaedic surgeons. For example, one physician may want the athlete to have 120 degrees of pain-free active flexion before returning to play. In addition, football players need to be well padded. Specially made thigh pads designed for a myositis injury may be required to protect the injury.

The next time you are watching sports and hear an athlete is out with a deep thigh bruise, do not

think he is a wimp, but that he is being held out for precaution to prevent bone from forming inside the muscle. Beau Sasser, M.D., board-certified orthopaedic surgeon and medical director for Southeast Georgia Health System Sports Medicine, states "It is important for an athlete to make his/her athletic trainer aware of an injury as soon as it happens. Myositis ossificans is a good example of an injury that, recognized acutely, can be treated, thereby avoiding delays in athletic competition. Athletes, parents, and coaches should follow their physician's and certified athletic trainer's return to play advice. This will allow the athlete to return to the field of play as quickly, but safely, as possible without the risk of re-injury."

Meet Dr. Beau Sasser

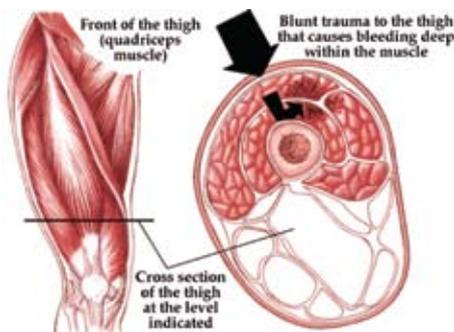
Beau Sasser, M.D., is a native of Glynn County and a graduate of Glynn Academy. He received his undergraduate degree from Washington University in St. Louis, Missouri, and his medical doctorate degree from the Medical College of Georgia, where he also completed both his internship and orthopaedic residency.



Following his residency, Dr. Sasser received exclusive sports medicine training while in a fellowship program with the Kansas City Orthopaedic Institute. During his time there, he worked with the NFL's Kansas City Chiefs, treating a variety of sports and orthopaedic injuries incurred by these elite athletes.

Dr. Sasser returned to Glynn County in 2005 and joined Summit Sports Medicine & Orthopaedic Surgery, where he specializes in sports medicine. At Southeast Georgia Health System, Dr. Sasser is a key orthopaedic surgeon at the Orthopaedic & Spine Center and serves as medical director of Sports Medicine. Dr. Sasser is board-certified with the American Board of Orthopaedic Surgery.

Summit Sports Medicine & Orthopaedic Surgery is a strategic affiliate of Southeast Georgia Health System and has three convenient locations. For more information, call 912-262-9961 in Brunswick, 912-466-5570 on St. Simons Island, or 912-576-6355 in St. Marys



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