People's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

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**Master one : STAPS**

**Lecture one 1: Terminologies**

**Strain** is force (a part of one's body or oneself) to make a strenuous or unusually great effort.

الإجهاد هو القوة (جزء من الجسد أو النفس) لبذل جهد شاق أو جهد كبير بشكل غير عادي.

**Spasm** is a sudden involuntary muscular contraction or convulsive movement.

التشنج هو تقلص عضلي لا إرادي مفاجئ أو حركة متشنجة.

**Flat muscle** is broad, relatively thin, sheetlike muscle, for example, muscles of the anterolateral abdominal wall (external and internal oblique, transversus abdominis).

العضلة المسطحة عبارة عن عضلة عريضة ورفيعة نسبيًا تشبه الصفيحة ، على سبيل المثال ، عضلات جدار البطن الأمامي الوحشي (المائل الخارجي والداخلي ، عضلات البطن المستعرضة).

**Torsion :** the action of twisting or the state of being twisted, especially of one end of an object relative to the other.

الالتواء: عمل الالتواء أو حالة الالتواء ، خاصةً عند أحد طرفي الجسم بالنسبة للطرف الآخر.

**Flexion** is the action of bending or the condition of being bent, especially the bending of a limb or joint.

**Shrink** is the process of becoming smaller.

الثني هو عمل الانحناء أو حالة الانحناء ، خاصة ثني أحد الأطراف أو المفصل.

**Lecture two : Ten common sports Injuries, and their treatment**

1. **Runner’s Knee**

Knee injuries are one of the most common sporting injuries treated by orthopedic surgeons. Replacing your runnings shoes and insoles on a regular basis is one of the best forms of prevention. Following an injury, take a break from exercise for a few days and and take some anti-inflammatory medicine.

1. **Shoulder Injury**

Shoulder injuries are common in a number of sports. The best form of prevention is to simply stretch properly before exercising. Again, taking a break and using anti-inflammatories are an effective treatment.

1. **Achilles Tendinitis**

Overuse of the back of the ankle (the Achilles Tendon) can cause major inflammation and pain. Strengthening exercises for the calf muscle and stretching can help prevent this injury. When it gets injured, use RICE (rest, ice, compression, elevate), and anti-inflammatories. Best sure to wait until it is fully healed before resuming exercise.

1. **Concussion**

A blow to the head usually causes this injury, causing disorientation and dizziness, among other symptoms. Our best advise for prevention is simply to avoid all contact sports. Recovery requires time and rest, and taking acetaminophen.

1. **Ankle Sprain**

Ankles sprains are common in sports that require lots of running and turning quickly. Prevention requires strengthening your ankles as much as possible. Treat with RICE, anti-inflamatories, and try to move the ankle to help with blood circulation.

1. **Tennis Elbow**

Injuries involving the elbow account for around 7% of sports injuries. Again, strengthening exercises are the best prevention, and treat with RICE, physiotherapy, and anti-inflamatories.

1. **Pulled Muscle**

The most commonly pulled muscles include calves and hamstrings. Prevention is as simple as stretching properly. Treat with RICE and gentle stretching.

1. **Groin Strain**

Athletes typically suffer this type of injury when making a sudden change of direction while running. This is one of the worst sports injuries, and is another case when stretching is the best advice for prevention. To heal from pulling your groin, take it easy for a couple of weeks, use RICE, and anti-inflammatory medications.

1. **Shin Splints**

Shin splint pain is caused by inflammation of the muscles that surround the inner side of the shinbone. Wearing good shoes and stretching is going to be the best prevention. Apply ice to the injury, stretch, and take anti-inflammatories.

1. **Lower Back Pain**

Lower back pain can result from any number of sporting activities. Warming up properly is your best bet for prevention, and treat with anti-inflammatories, RICE, and stretching thoroughly

**Lecture three : Body Systems, Functions, and Organs**

**Cardiovascular/Circulatory**

Function: Blood circulation

Organs: Heart, Arteries and Veins

**Digestive System**

Function: Processing food

Organs: Mouth, Pharynx, Esophagus, Stomach and Intestines

Accessory organs: liver, gallbladder, abdomen and appendix

**Endocrine Hormone System**

Function: Production a number of glands throughout the body

Organs: Thyroid Pituitary , Adrenal glands

**Urinary System**

Function: Waste elimination

Organs: Kidneys, Bladder

**Reproductive System**

Function: Contributing to reproduction

Organs: Uterus, Ovaries, Fallopian tubes

**Nervous/Sensory System**

Function: Communication between and coordination of all the body systems nervous

Organs: Brain, Nerves

Sensory: Eyes Ears

**Integumentary System**

Function: Protects against damage

Organs: Skin, Hair, Nails

**Muscular/Skeletal System**

Function: Provides form, support, stability, and movement to the body

Organs: Muscles, Bones

**Hematopoietic/Lymphatic System**

Function: Blood production, maintenance of fluid balance, and defense against disease

Organs: Bone marrow, Spleen Tonsils, Lymph fluid, nodes, ducts, vessels