**Cut / Incision Research**

Causes:

* Split laceration: body is crushed between blunt objects and the skin is teared due to compression
* Overstretching: one force which pushes or pulls on the skin causing it to break
* Grinding compression: blunt impact that occurs parallel or diagonal to the skin and peels it back
* Cut laceration: cut caused by any type of blade
* Tearing: two forces push or pull the skin in opposite directions and cause it to tear

Symptoms:

Minor cut:

* Mild pain
* Minor bleeding
* Infection if left untreated

Major cut:

* Moderate to severe pain
* Heavy bleeding, blood may spurt out of the wound
* Possible infection

Treatment

* Minor cut
  + Run cool water over the wound
  + Apply antibiotic ointment
  + Place a bandage on the cut
* Major cut:
  + Run cool water over the wound to wash off loose debris
  + Place a large bandage or towel over the cut
* Call 911 if:
  + The cut is from an animal bite
  + The cut is dirty and can not be cleaned
  + The cut is very deep or over a joint
  + There is major bleeding which lasts for over 10 minutes

**Ankle Sprain**

Causes:

* Inversion of ankle, the foot is rolled sideways underneath the leg
* Rarely occurs during the setting of an ankle fracture
* Most commonly occurs during sports, especially if jumping is involved
* Hindfoot Varus is a disability in which the rear of the foot is naturally in an awkward position and makes ankle sprains much more common

Symptoms:

* Foot may swell up
* Minor to severe pain depending on the severity of the sprain
* Bruising, noticeable color change

Severity Types:

* Grade 1 Sprain (Mild)
  + Slight stretching and microscopic tearing of the ligament fibers
  + Mild tenderness and swelling around the ankle
* Grade 2 sprain(Moderate)
  + Partial tearing of the ligament
  + Moderate tenderness and swelling around the ankle
  + If the doctor moves the ankle in certain ways, there is an abnormal looseness of the ankle joint
* Grade 3 Sprains:
  + Complete tear of the ligament
  + Significant tenderness and swelling around the ankle
  + If the doctor pulls or pushes on the ankle joint in certain movements, substantial instability occurs

Types of ankle sprain:

* Inversion
  + Most common type of ankle sprain, accounting for about 85% of them
  + Caused by the Anterior Talofibular ligament (ATFL) which connects the ankle to the fibula being torn
* Eversion
  + Sprain of the deltoid ligament which connects the tibia and fibula
  + Often times is the cause of a fracture of the fibula
* High ankle sprain
  + Sprain which is located above the ankle
  + Sprain of the ligaments which connect the tibia and fibula, the two bones in the lower leg
  + Eversion type sprain

Treatment:

* Avoid walking on your ankle
* Apply ice for 20 minutes 3 to 4 times daily, do not allow ice to directly touch skin, place inside bag
* Apply bandages to immobilize joint and provide support
* Elevate ankle above the rest of your body
* Take anti-inflammatory and pain reducing drugs such as ibuprofen
* Physical therapy can help with healing
* Grade 2 Sprain:
  + May require a cast-boot or air-stirrup ankle brace
* Grade 3 Sprain:
  + May require a leg-cast or cast-brace
  + Very rarely requires surgery
    - Surgery typically involves removing broken bone fragments and, if necessary, replacing sections of the ligaments with tissue obtained from another ligament
      * Surgery requires a long immobilization period and rehabilitation

**Neck Sprain**

Causes:

* Too much time spent in an awkward position ex: sleeping or on a computer
* Placing a large amount of weight on one side of the body
* Physical trauma such as whiplash or a sudden jolt of the neck or head, can be caused by a car accident, amusement park ride, or being knocked back from a physical impact such as a kick

Symptoms:

* Pain around the neck, especially in the back
* Headache
* Sore throat
* Shoulder muscle spasms and numbness in arms and hands
* Neck stiffness
* Pain when trying to turn neck
* Decreased range of motion in neck
* Weakness in arms
* Tenderness in neck
* Dizziness
* Ringing in ears

Severity Levels:

* Grade 0:
  + No neck pain and very minor to no physical signs
* Grade 1:
  + Minor neck pain, some stiffness and tenderness
* Grade 2:
  + Neck pain and reduced range of motion in neck
* Grade 3:
  + Neck pain and neurological signs, weakened senses, reduced reaction times
* Grade 4:
  + Neck pain and fracture or dislocation

Treatment:

* Place ice in a bag then apply to affected area
* Take painkillers such as ibuprofen
* Physical therapy
* Use a neck brace if necessary
* If pain persists but swelling has reduced, apply moist heat
* If symptoms persist for more than three months than ask your doctor for further treatment

**Wrist Sprain**

Causes:

* Falling on the hand causing it to bend backwards
* Stretching the hand beyond its limit
* Grade 1
  + Ligament is stretched but not torn
* Grade 2
  + Ligament is partially torn
* Grade 3
  + Complete tear of ligament

Symptoms:

* Swelling and bruising in hand
* Reduced range of movement and painful to move wrist
* Tearing feeling in wrist
* Wrist feels unnaturally warm
* Some symptoms for severe sprains may not appear and if left untreated may require surgery
* Grade 1
  + Very few symptoms
  + Minor pain
* Grade 2
  + Minor loss of movement in wrist
  + Moderate pain
* Grade 3
  + Painful
  + Ligament can break off a piece of bone as it is torn

Treatment:

* For minor sprains a bandage or splint can inhibit motion
* Major sprains such as a complete tear of the ligament may require surgery
* Place ice on the injured wrist (do not allow the ice to directly touch the skin)
* Rest for at least 48 hours
* Pain and inflammation reducing medication such as ibuprofen may be taken if necessary

**Sprain Information Paragraph**

**A sprain is the result of a wrench or twist of the ligaments of a joint. This is usually caused by a fall, stopping yourself from hitting the ground with your arm, or landing on the side of your foot. These sprains are usually associated with swelling, bruises, color change, and pain.**

**Cut Information Paragraph**

**A cut is an incision on the body caused by a sharp object. It can affect only the top of your skin or even reach bones. These lacerations are caused by numerous different events, predominantly encounters with sharp objects. Some symptoms associated with cuts are discharge, redness and swelling, pain, or even an infection.**

TRY TO MAKE IT DIFFERENT FROM THIS: [Another APP LIKE OURS THAT IS BETTER!!!](https://itunes.apple.com/us/app/bluejay-pt-physical-therapy/id858081432?mt=8) (This app doesn’t include any information about injuries, ours does)

HOW TO CREATE A LOGIN SCREEN SO THAT WE CAN SAVE DATA DEPENDING ON ACCOUNT: <https://www.youtube.com/watch?v=r5wrTmuwhHQ>

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