

K-W URGENT CARE CLINICS INC.

Westmount UCC 751 Victoria Street South, Kitchener, ON N2M 5N4 519-745-2273
Fairway UCC 385 Fairway Road South, Kitchener, ON N2C 2N9 519-748-2327

OPEN Mon-Fri 8am-5pm, Sa & Su 8am-3pm, Holidays 8am-3pm CLOSED Dec25, Jan1
Onsite Xray, Ultrasound, MRI, Laboratory Services, Foot Clinic, Physio, Massage
We treat all non-life threatening Urgencies and minor Emerg, WSIB, Travel Health

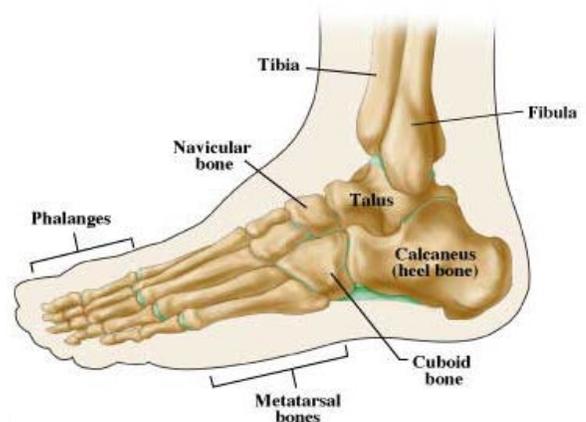
Special Instructions:

Follow Up:

Metatarsal Fracture

(Including Jones and Dancer's Fracture) with Rehab

A metatarsal fracture is a break (*fracture*) of one of the bones of the mid-foot (*metatarsal bones*). The metatarsal bones are responsible for maintaining the arch of the foot. There are three classifications of metatarsal fractures: dancer's fractures, Jones fractures, and stress fractures. A dancer's fracture is when a piece of bone is pulled off by a ligament or tendon (*avulsion fracture*) of the outer part of the foot (*fifth metatarsal*), near the joint with the ankle bones. A Jones fracture occurs in the middle of the fifth metatarsal. These fractures have limited ability to heal. A stress fracture occurs when the bone is slowly injured faster than it can repair itself.



SYMPTOMS

- Sharp pain, especially with standing or walking.
- Tenderness, swelling, and later bruising (*contusion*) of the foot.
- Numbness or paralysis from swelling in the foot, causing pressure on the blood vessels or nerves (uncommon).

CAUSES

Fractures occur when a force is placed on the bone that is greater than it can handle. Common causes of injury include:

- Direct hit (*trauma*) to the foot.
- Twisting injury to the foot or ankle.
- Landing on the foot and ankle in an improper position.

RISK INCREASES WITH

- Participation in contact sports, sports that require jumping and landing, or sports in which cleats are worn on shoes and sliding occurs.
- Previous foot or ankle sprains or dislocations.
- Repeated injury to any joint in the foot.
- Poor strength and flexibility.

PREVENTIVE MEASURES

- Warm up and stretch properly before activity.
- Allow for adequate recovery between workouts.
- Maintain physical fitness:
 - Strength, flexibility, and endurance.
 - Cardiovascular fitness.
- When participating in jumping or contact sports, protect joints with supportive devices, such as wrapped elastic bandages, tape, braces, or high-top athletic shoes.
- Wear properly fitted and padded protective equipment.

EXPECTED OUTCOME

If treated properly, metatarsal fractures usually heal well. Jones fractures have a higher risk of nonunion (*failure of the bone to heal*). Sometimes, surgery is needed to heal Jones fractures.

POSSIBLE COMPLICATIONS

- Fracture fails to heal (*nonunion*).

- Fracture heals in a poor position (*malunion*).
- Chronic pain, stiffness, or swelling of the foot.
- Excessive bleeding in the foot or at the dislocation site, causing pressure and injury to nerves and blood vessels (rare).
- Unstable or arthritic joint, following repeated injury or delayed treatment.

GENERAL TREATMENT CONSIDERATIONS

Treatment first involves the use of ice and medicine, to reduce pain and inflammation. If the bone fragments are out of alignment (*displaced*), then immediate realigning of the bones (*reduction*) by a person trained in the procedure is required. Fractures that cannot be realigned by hand, or where the bones protrude through the skin (*open*), may require surgery to hold the fracture in place with screws, pins, and plates. After the bones are in proper alignment, the foot and ankle must be restrained for 6 or more weeks. Restraint allows healing to occur. After restraint, it is important to perform strengthening and stretching exercises to help regain strength and a full range of motion. These exercises may be completed at home or with a therapist. A stiff-soled shoe and arch support (*orthotic*) may be required when first returning to sports.

MEDICATION

- If pain medicine is needed, nonsteroidal anti-inflammatory medicines (aspirin and ibuprofen), or other minor pain relievers (acetaminophen), are often advised.
- Do not take pain medicine for 7 days before surgery.
- Prescription pain relievers may be given, if your caregiver thinks they are needed. Use only as directed and only as much as you need.

COLD THERAPY

- **Cold** treatment (*icing*) should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain, and immediately after activity that aggravates your symptoms. Use ice packs or an ice massage.

SEEK TREATMENT IF:

- Pain, tenderness, or swelling gets worse, despite treatment.
- You experience pain, numbness, or coldness in the foot.
- Blue, gray, or dark color appears in the toenails.
- Any of the following occur after surgery:
 - Fever.
 - Increased pain, swelling, and redness.
 - Drainage of fluids or bleeding in the affected area.
- New, unexplained symptoms develop. (*Drugs used in treatment may produce side effects.*)

EXERCISES

RANGE OF MOTION AND STRETCHING EXERCISES - Metatarsal Fracture (including Jones and Dancer's Fractures)

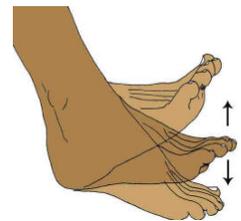
These exercises may help you when beginning to rehabilitate your injury. Your symptoms may resolve with or without further involvement from your physician, physical therapist or athletic trainer. While completing these exercises, remember:

- Restoring tissue flexibility helps normal motion to return to the joints. This allows healthier, less painful movement and activity.
- An effective stretch should be held for at least 30 seconds.

A stretch should never be painful. You should only feel a gentle lengthening or release in the stretched

RANGE OF MOTION - Dorsi/Plantar Flexion

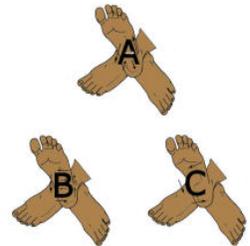
- While sitting with your _____ knee straight, draw the top of your foot upwards, by flexing your ankle. Then reverse the motion, pointing your toes downward.
- Hold each position for _____ seconds.
- After completing your first set of exercises, repeat this exercise with your knee bent.



Repeat _____ times. Complete this exercise _____ times per day.

RANGE OF MOTION - Ankle Alphabet

- Imagine your _____ big toe is a pen.
- Keeping your hip and knee still, write out the entire alphabet with your "pen." Make the letters as large as you can, without increasing any discomfort.



Repeat _____ times. Complete this exercise _____ times per day.

STRETCH – Gastroc, Standing

- Place your hands on a wall.
- Extend your _____ leg behind you, keeping the front knee somewhat bent.
- Slightly point your toes inward on your back foot.
- Keeping your _____ heel on the floor and your knee straight, shift your weight toward the wall, not allowing your back to arch.
- You should feel a gentle stretch in the _____ calf. Hold this position for _____ seconds.



Repeat _____ times. Complete this stretch _____ times per day.

STRETCH – Soleus, Standing

- Place your hands on a wall.

- Extend your _____ leg behind you, keeping the other knee somewhat bent.
- Slightly point your toes inward on your back foot.
- Keep your _____ heel on the floor, bend your back knee, and slightly shift your weight over the back leg so that you feel a gentle stretch deep in your back calf.
- Hold this position for _____ seconds.

Repeat _____ times. Complete this stretch _____ times per day.

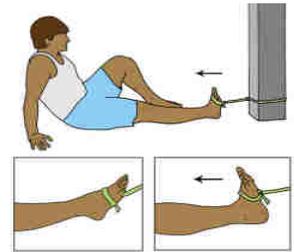
STRENGTHENING EXERCISES - Metatarsal Fracture (Including Jones and Dancer's Fractures)

These exercises may help you when beginning to rehabilitate your injury. They may resolve your symptoms with or without further involvement from your physician, physical therapist or athletic trainer. While completing these exercises, remember:

- Muscles can gain both the endurance and the strength needed for everyday activities through controlled exercises.
- Complete these exercises as instructed by your physician, physical therapist or athletic trainer. Increase the resistance and repetitions only as guided by your caregiver.

STRENGTH - Dorsiflexors

- Secure a rubber exercise band or tubing to a fixed object (table, pole) and loop the other end around your _____ foot.
- Sit on the floor facing the fixed object. The band should be slightly tense when your foot is relaxed.
- Slowly draw your foot back toward you, using your ankle and toes.
- Hold this position for _____ seconds. Slowly release the tension in the band and return your foot to the starting position.



Repeat _____ times. Complete this exercise _____ times per day.

STRENGTH - Plantar-flexors

- Sit with your _____ leg extended. Holding onto both ends of a rubber exercise band or tubing, loop it around the ball of your foot. Keep a slight tension in the band.
- Slowly push your toes away from you, pointing them downward.
- Hold this position for _____ seconds. Return slowly, controlling the tension in the band.



Repeat _____ times. Complete this exercise _____ times per day.

STRENGTH - Plantar-flexors

- Stand with your feet shoulder width apart. Steady yourself with a wall or table, using as little support as needed.
- Keeping your weight evenly spread over the width of your feet, rise up on your toes.*
- Hold this position for _____ seconds.



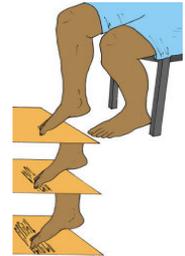
Repeat _____ times. Complete this exercise _____ times per day.



*If this is too easy, shift your weight toward your _____ leg until you feel challenged. Ultimately, you may be asked to do this exercise while standing on your _____ foot only.

STRENGTH - Towel Curls

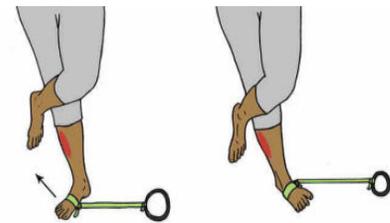
- Sit in a chair, on a non-carpeted surface.
- Place your foot on a towel, keeping your heel on the floor.
- Pull the towel toward your heel only by curling your toes. Keep your heel on the floor.
- If instructed by your physician, physical therapist or athletic trainer, weight may be added at the end of the towel.



Repeat _____ times. Complete this exercise _____ times per day.

STRENGTH - Ankle Eversion

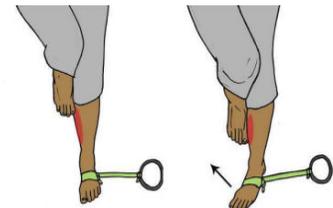
- Secure one end of a rubber exercise band or tubing to a fixed object (table, pole). Loop the other end around your foot, just before your toes.
- Place your fists between your knees. This will focus your strengthening at your ankle.
- Drawing the band across your opposite foot, away from the pole, slowly, pull your little toe out and up. Make sure the band is positioned to resist the entire motion.
- Hold this position for _____ seconds.
- Have your muscles resist the band, as it slowly pulls your foot back to the starting position.



Repeat _____ times. Complete this exercise _____ times per day.

STRENGTH - Ankle Inversion

- Secure one end of a rubber exercise band or tubing to a fixed object (table, pole). Loop the other end around your foot, just before your toes.
- Place your fists between your knees. This will focus your strengthening at your ankle.
- Slowly, pull your big toe up and in, making sure the band is positioned to resist the entire motion.
- Hold this position for _____ seconds.
- Have your muscles resist the band, as it slowly pulls your foot back to the starting position.



Repeat _____ times. Complete this exercises _____ times per day.

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