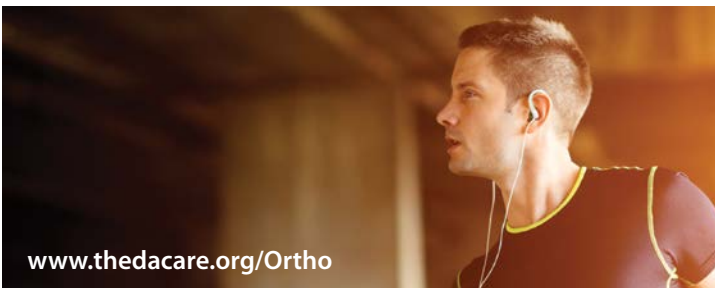
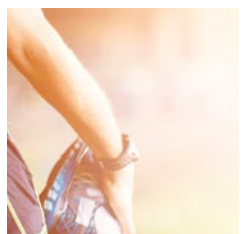
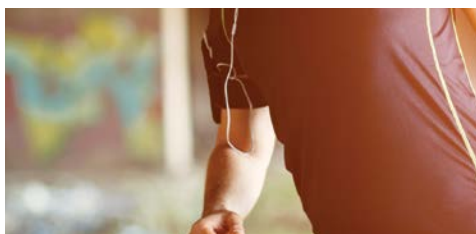


Marathon and Half Marathon Training Guide



www.thedacare.org/Ortho



Free Injury Assessment Clinics

Thursdays from 12:00pm - 1:00pm

ThedaCare Orthopedic Care

820 E. Grant Street, Appleton, 920.831.5050

No appointment necessary.

Whether you're training for the half or full marathon, our sports medicine team of physical therapists or sports medicine physicians will be available to assess your injury and provide recommendations to help you recover and return to your activity safely.

A physical therapist will refer patient for a physician's visit with diagnostics if needed.*

*If more advanced exam and diagnostics needed, additional costs may apply.

Free Clinic Dates



8/3



8/31




8/10




9/7



8/17



9/14



8/24



9/21

We'll Keep You Moving

Congratulations!

Whether you're an experienced runner or walker or trying your first race, you're doing great things for your overall health and fitness. You receive big benefits too: strengthening your bones and muscles, working your heart, increasing oxygen flow and reducing stress.

Our training guide is designed to help you maximize these benefits while minimizing the chance for burn-out and injuries. You'll find tips for stretching and warming-up, maps of area trails, nutrition and hydration guidelines, and lots of other information that will boost your performance and enjoyment.

If you experience an unexpected ache or pain, sprain or strain, the team at ThedaCare Orthopedic Care is here to help. The previous page contains a calendar of free injury clinics. Our post injury clinic is September 21st. Or, call us anytime for an appointment at 920.831.5050. Remember, an injury doesn't always mean surgery.

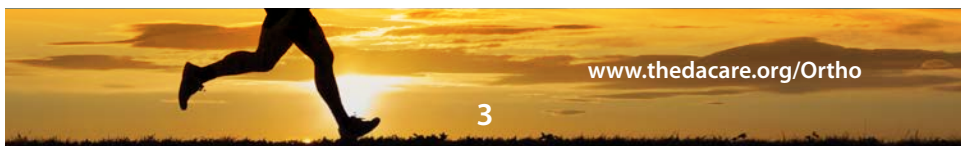
The ThedaCare Orthopedic Care model is one you can count on for fast, accurate treatment. We all want the same positive, productive outcome and that only comes through a complete understanding of each and every person cared for at ThedaCare Orthopedic Care. Your needs are understood from start to finish. Best of luck with your training!

ThedaCare Orthopedic Care Team

www.thedacare.org/Ortho

Table of Contents

- 2** Free Injury Assessment Clinics
- 3** We'll Keep You Moving
- 4** I Want To Run But My Knee Hurts
- 5** Dynamic Warm-Up
- 6** Do I Need a Day Off?
- 7** Static Stretches
- 8** Half and Full Marathon Training Schedules
- 9** ThedaCare Orthopedic Care and PaceSetters Training Runs
- 9** Top 4 Running Apps
- 10** Cross Training 101
- 11** Less Is More
- 12** A Strong Core
- 13** Recovery Stretches
- 14** Recovery – Begins As Soon As You Finish
- 16** Post Race Injury Assessment Clinic



I Want to Run But My Knee Hurts

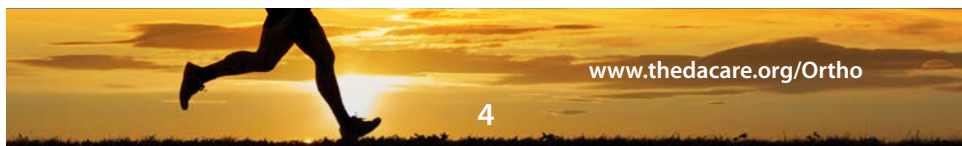
Knees are the most common site of injury for runners. Typically, pain is experienced in either the front part of the knee (the knee cap) or the outside aspect of the knee. Pain in the front of the knee is medically termed patellofemoral pain syndrome. Pain on the lateral or outside part of the knee commonly results from a condition known as iliotibial band syndrome (or ITB syndrome for short). This article is going to focus on the latter, ITB syndrome. ITB syndrome is inflammation and pain on the outside part of the knee. The iliotibial band is a thick connective tissue that runs along the outside of your thigh. It connects a muscle on the outside of your hip to the outside of your lower leg. ITB syndrome results from this band repetitively rubbing along the bone of your femur, causing inflammation. Running is the most common cause of ITB syndrome.

What can you do to prevent and reduce ITB syndrome symptoms?

- **Warm-up** by performing active stretches prior to running. Save stretching for AFTER the race.
- **Take a break from running.** Add cross-training, such as biking, elliptical, or swimming, to your weekly routine in place of some of your runs. This will allow you to continue to improve your cardiovascular endurance and fitness level while giving your legs a much needed rest. Any activity that you choose MUST be pain-free!
- **Watch your stride.** Can you hear your feet hitting the ground? Do you consider yourself someone who takes long strides? Over striding results in significant stresses to the muscles, bones, and soft tissues of the lower body. This can result in various injuries, including ITB syndrome. Shorten your stride to reduce impact on your joints and improve your running efficiency.



- **Replace your shoes.** Depending on what you read, it is recommended that you change your shoes every 400-600 miles. But don't get too caught up in the exact number. Listen to your body. Pain can be a sign that your shoes are wearing down. It's also important to purchase your shoes from a reputable shoe store that understands how to assess the right type of shoe for you.
- **Don't forget the ice.** Ice can reduce pain and inflammation and should be utilized on the affected area for 20 minutes, 2-3 times per day.
- **Roll it out.** Using a foam roller can help decrease the tension in the iliotibial band. Lie on your side with your thigh of the affected leg contacting the foam roller. Your arm and opposite leg will help to support you. Gently roll up and down the foam roller from your knee to your hip. Repeat 10 times. 1 time per day.
- **Stretch it out.** Stretches that target the front and the outside of the hip improve the length of the affected muscle and iliotibial band.
- **Strengthen your glutes.** Performing exercises that target the buttock muscles can help to stabilize the femur and prevent it from rubbing on the iliotibial band.
- **Check out our free injury clinics.** The less time that passes from the onset of the injury to the start of the treatment typically means the less time away from the sport you love. Let us help you get back to running faster!



Dynamic Warm-Up

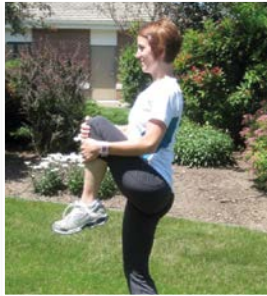
Performed BEFORE running or other aerobic activities. A dynamic warm-up is one in which you are moving throughout the full range of motion of the joints, without holding the position, to prepare yourself for the activity. Dynamic warm-ups improve the elasticity of the muscles, improve your coordination, and excite the nervous system for the upcoming event.

Grapevine



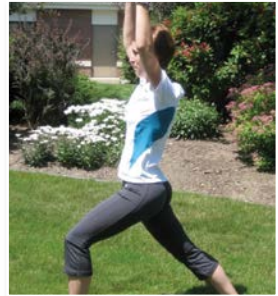
Cross trailing leg over the leading leg and return to neutral stance. Repeat with trailing leg crossing behind the leading leg (in which you hold a position for a period of time) is best when performed AFTER a run or other aerobic activities.

Knee High Hug



As you walk forward, bring one knee up to your chest, pulling it close with your hands. Alternate legs as you continue to walk forward. Perform 10 repetitions on each leg. Repeat the exercise walking backward. Perform 10 repetitions on each leg.

Lunge with Overhead Reach



Lunge forward onto one foot. Keep the knee straight on the trail leg and the heel on the floor. Hold this position as you reach your arms overhead. Repeat on the other leg as you continue to move forward. Perform 10 repetitions on each side.

Hamstring Stretch



As you walk forward, kick your left leg out in front of you and reach for your toes with your right hand. Then kick your right leg out in front of you and reach for your toes with your left hand. Perform 10 repetitions on each side. Repeat the exercise walking backward. Perform 10 repetitions on each side.

Hurdlers



Stand on one leg and lift the other leg out to the side with knee bent. Circle leg forward until knee is in front of your body. Lower that leg to the ground and repeat on the other side. Make sure your upper body stays tall and does not lean side to side.

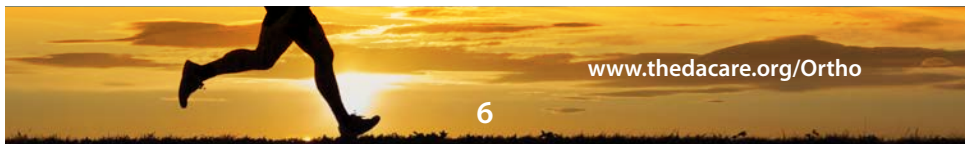
Do I Need a Day Off?

It is important to know your body's limits to prevent over-training. Rest and recovery are key components of training and allow your body to adapt to the stresses you are placing on the body. When we train, we cause irritation and inflammation to our muscles. Rest days give our body the opportunity to recover and heal the muscles so that they are stronger than they were before we trained and better prepared for the stress of the activity the next time we engage in it. By skipping your rest days or over training, your body will actually begin to lose strength, speed, and stamina. Overtraining not only causes you to plateau in your work-out; it can also negatively affect the rest of our body systems.

What are some of the signs that my body is being over-trained? How do I know when I NEED a day off??

Below are 10 markers to pay attention to. If you say "yes" to 3 or more of the markers, you should strongly consider taking a day off.

- 1. You are losing weight.**
- 2. Your heart rate is elevated.** This is a sign of stress.
- 3. You aren't sleeping well or aren't sleeping enough.** Sleep is necessary to help rebuild the muscle fibers you disrupt with a good workout.
- 4. Your urine is dark yellow in color.** A sign of dehydration. You need to drink water.
- 5. You feel run down.** Be honest with yourself on this one.
- 6. You are in a bad mood.**
- 7. You feel sick.**
- 8. You have pain or an injury.**
- 9. You had a bad workout or multiple workouts.**
- 10. Your oxygen levels are low** (as measured by a pulse oximeter). Most people will not be able to monitor their oxygen levels and thus this marker will likely not apply.



Static Stretches

Hold a position for a period of time and are best when performed AFTER a run or other aerobic activity. While exercising, our blood flow is diverted to the working muscles which warms the muscles and makes them more pliable. Static stretches maximally elongate the muscles and relax the nervous system.

Stretching is very important for runners. Flexibility exercises maintain optimal joint mobility which in turn allows for improved distribution of forces across joint surfaces. Stretching and warming up properly can decrease your injury risk. BUT – when is the best time to stretch?

Buttock Stretch



Lay on your back with both knees bent. Place the ankle of your left leg onto your right knee. Gently pull your right leg up toward your chest. You should feel a stretch in your left buttock. Hold this position for 30 seconds. Perform 3 repetitions. Repeat on the other side.

Quadriceps Stretch



Lay on your stomach on the right side of your bed. Drop your right leg off of the bed, flexing your hip and knee so that your foot is underneath your hip. Use a belt or your left hand to grasp your left ankle. Pull your left leg toward your buttock until you feel a stretch in the front of your left thigh. Hold this position for 30 seconds. Perform 3 repetitions.

Hamstring Stretch

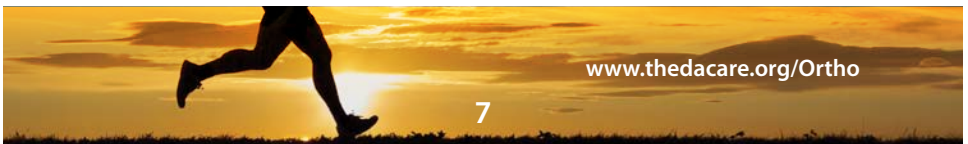


Stand with your right leg on a chair. Keep your left leg straight and your trunk tall. Gently reach forward, leading with your chest. Do not round your back. You should feel a stretch in the back of your thigh. Hold this position for 30 seconds. Perform 3 repetitions. Repeat on the other side.

Inner Thigh Stretch



Sit with your back and buttock against a wall. Tuck your feet in toward you. Relax your legs so that they fall toward the ground. From this position, gently arch your back away from the wall. You should feel a stretch in your groin and inner thigh. Hold for 30 seconds. Perform 3 repetitions.

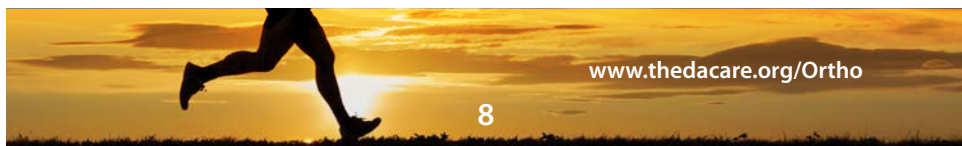


Half Marathon Training Schedule

Week	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
5/22-5/28	Rest	3	2	3	Rest	4	XT
5/29-6/4	Rest	3	2	3	Rest	4	XT
6/5-6/11	Rest	3.5	2	3.5	Rest	5	XT
6/12-6/18	Rest	4	2	4	Rest	6	XT
6/19-6/25	Rest	4	2	4	Rest	5	XT
6/26-7/2	Rest	4.5	3	4.5	Rest	7	XT
7/3-7/9	Rest	4.5	3	4.5	Rest	7.5	XT
7/10-7/16	Rest	4.5	3	4.5	Rest	8	XT
7/17-7/23	Rest	5	3	5	Rest	7	XT
7/24-7/30	Rest	5	3	5	Rest	8	XT
7/31-8/6	Rest	5	3	5	Rest	10	XT
8/7-8/13	Rest	5	3	5	Rest	8	XT
8/14-8/20	Rest	6	3	5	Rest	10	XT
8/21-8/27	Rest	6	3	5	Rest	13.1	XT
8/28-9/3	Rest	6	3	5	Rest	11	XT
9/4-9/10	Rest	4.5	3	3.5	Rest	7	XT
9/11-9/17	Rest	4.5	2	3	Rest	5	XT
9/18-9/24	Rest	4	3	2	Rest	Rest	13.1!

Full Marathon Training Schedule

Week	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
5/22-5/28	Rest	3	3	3	Rest	8	XT
5/29-6/4	Rest	3	3	3	Rest	9	XT
6/5-6/11	Rest	3	4	3	Rest	6	XT
6/12-6/18	Rest	3	5	3	Rest	11	XT
6/19-6/25	Rest	3	5	3	Rest	12	XT
6/26-7/2	Rest	3	6	3	Rest	9	XT
7/3-7/9	Rest	3	6	3	Rest	14	XT
7/10-7/16	Rest	3	7	4	Rest	15	XT
7/17-7/23	Rest	3	7	4	Rest	13	XT
7/24-7/30	Rest	4	8	4	Rest	17	XT
7/31-8/6	Rest	4	8	5	Rest	18	XT
8/7-8/13	Rest	4	9	5	Rest	13	XT
8/14-8/20	Rest	5	9	5	Rest	19	XT
8/21-8/27	Rest	5	9	5	Rest	13.1	XT
8/28-9/3	Rest	5	10	5	Rest	20	XT
9/4-9/10	Rest	5	8	4	Rest	12	XT
9/11-9/17	Rest	4	6	3	Rest	8	XT
9/18-9/24	Rest	3	4	2	Rest	Rest	26.2!



ThedaCare Orthopedic Care and Pacesetters Training Runs

Week	Date	Full Distance	Half Distance
1	May 27	8 miles	4 miles
2	June 3	9 miles	4 miles
3	June 10	6 miles	5 miles
4	June 17*	11 miles	6 miles
5	June 24*	12 miles	5 miles
6	July 1*	9 miles	7 miles
7	July 8*	14 miles	7.5 miles
8	July 15*	15 miles	8 miles
9	July 22*	13.1 miles	6.2 miles
10	July 29*	17 miles	8 miles
11	August 5*	18 miles	10 miles
12	August 12*	13 miles	8 miles
13	August 19*	20 miles	10 miles
14	August 26*	12 miles	6 miles
15	September 2*	20 miles	11 miles
16	September 9*	12 miles	7 miles
17	September 16	8 miles	5 miles
18	September 24	Marathon (26.2)	Half Marathon (13.1)



***ThedaCare Orthopedic Care will be at these PaceSetters Training Runs to answer questions.**

Rain or Shine.

For all abilities and age groups!

Place:

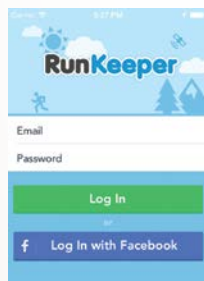
Run Away Shoes (Start & Finish),
W3192 Cty. Rd. KK, Appleton
Next to Kohl's East
(Hwy. 441 and Calumet St., County KK)
Saturday Mornings - 7:00 a.m. Start

Provided:

- Water and Gatorade on course and at the Start/Finish
- Safe and runner/walker friendly courses (varies week to week)
- An opportunity to see various miles of the Fox Cities Marathon and Half Marathon race day course!
- Knowledgeable PaceSetters Running Club and Fox Cities Marathon Staff present to answer any questions regarding training, registration, etc.

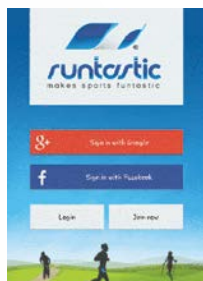
Top 4 Running Apps

RunKeeper



RunKeeper is the simplest way to improve fitness, whether you're just deciding to get off the couch for a 5k, biking every day, or deep into marathon training. Track your runs, walks, bike rides, training workouts and all of the other fitness activities using the GPS in your iPhone.

Runtastic



Runtastic is a free app tracks tracks your fitness activities: running, walking, biking, jogging, etc. Track all your data to start improving your fitness. Runtastic is optimized for Apple watch including heart rate tracking directly from your wrist.

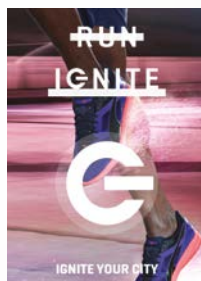
STRAVA



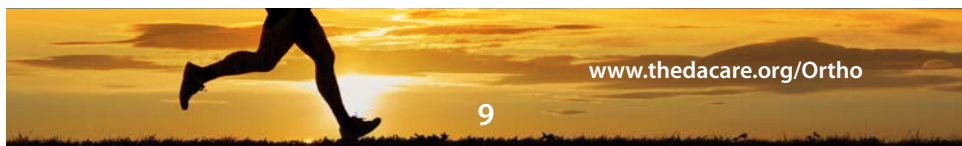
STRAVA Running and Cycling allows you to track your runs and rides with GPS, join Challenges and see how your running and riding compares with friends.

"The World's Top 10 Most Innovative Companies in Fitness"
—Fast Company

Pumatrac



Pumatrac is a unique training application with a modern, user-friendly design. The app is designed to motivate athletes to get training and discover ways to get the most out of a workout while having fun along the way.



www.thedacare.org/Ortho

Cross Training 101



Cross training is an essential component to successfully training for any running event. It helps to assist with injury prevention as well as give your body a break from the rigors of logging miles. Cross training also improves recovery, overall fitness level, stamina, motivation, and rejuvenates the body by challenging it with different movement patterns. Some examples of cross training include strength training, flexibility training (yoga), and endurance training.

When cross training, you may choose other forms of exercise that mimic the movement of running. Examples include water running, elliptical, cross country ski machine, or a stationary bike. Cross training days are different from rest days in your training schedule and you still want to exert the same effort you would put forth during a training run. Research has found that substituting 25-30% of your weekly mileage with cross training can maximize your overall running quality and fitness level.

As a runner, there are certain areas that you may be overly strong in while other areas you may be neglecting due to the same motion your body goes through with every step and arm swing. Runners tend to have:

Weak Hamstrings

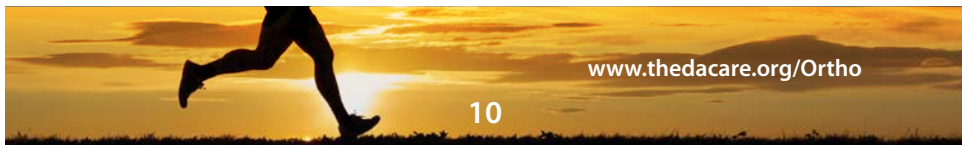
- Improves with...
 - Cycling

Weak Upper Body

- Improves with...
 - Swimming
 - Rowing

Decreased flexibility

- Improves with...
 - Yoga
 - Pilates



Less is More

Contrary to conventional wisdom, running less often can actually make you a better runner.



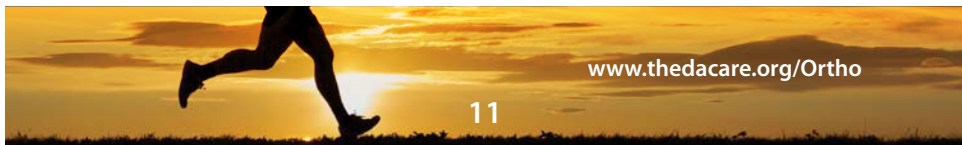
Most runners desire to improve their time, their distance, or both. It seems logical that running more will make you a better runner. So we log more miles and run nearly every day of the week and before long we either get hurt or bored or both—but not so fast—improving your running doesn't have to mean committing more of your time to running. Quite frankly, who really has the time?

Contrary to conventional wisdom, running less often can actually make you a better runner. Research has found that we need to run 3 days per week to improve our running capacity. Running no more than 3 days per week can make running easier and more accessible. By running less, you decrease the potential for burnout and overtraining. And most importantly, you can reduce your risk of developing common running injuries. Be sure to have “purpose” to your 3 runs. If you are training for a race, one of your runs needs to be a long run. The other 2 runs can be shorter distances—consider a tempo run and a speed

workout if you are looking to improve your time or race pace.

What about the other 4 days of the week? To improve your running capacity, you need to incorporate cross-training at least 2 days per week. Cross-training can include any activity that isn't running—such as biking, weight training, swimming, rowing, elliptical, yoga, interval training, karate, kick boxing, aerobics class, etc. The possibilities are endless. In order for the cross-training to be beneficial, the workout should be challenging. Cross-training can improve your balance, power, strength, and flexibility—all of which can help you improve your endurance, aerobic capacity, and race day performance.

And don't forget the importance of rest. Recovery time is not a break from training, but rather part of it. It's not the workout that makes you stronger, it's the recovery that allows your muscles to rebuild, adapt, and prepare for the next workout.



A Strong Core

Posture and form are extremely important for runners to decrease abnormal loading. The core is composed of the abdominals, back/spinal, gluteal and hip musculature. A strong core allows a runner to maintain good posture and transfer the load of their feet contacting

the ground. Training these muscles allows for the maintenance of good form especially as a runner fatigues during the later stages of an endurance event. The core can be trained in as little as 2-5 minutes every day.

Basic Core:

Work up to being able to hold for a total of 60 seconds (i.e. beginning 4 x 15 seconds)

Low Plank



Low Side Plank



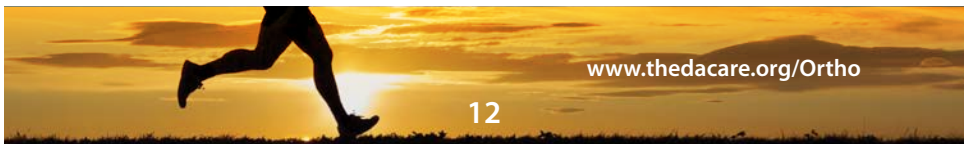
Advanced Core:

Work up to performing each motion for total of 30 repetitions

High Plank with Hip Extension



High Plank with Hip Abduction



Recovery Begins As Soon As You Finish

Our goal is to help you start your post-race recovery safely, until you can get back home and begin your post-race routine.



Recovery Stretches:

Hamstring



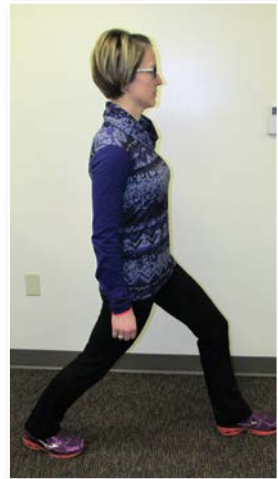
Place right foot on ground. Slowly lean forward, keeping back straight, until stretch is felt in back of thigh. Hold 30 seconds and repeat.

Calf

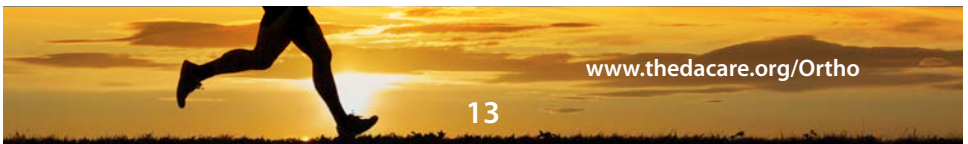


Put left ball of foot up against the wall, slanted at about a 30 degree angle with heel resting on floor. Keep toes straight and support with hands on wall. With left leg straight, press entire body forward towards the wall. Hold 30 seconds and repeat.

Hip Flexor/Quad

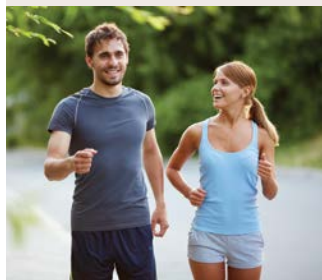


Standing with right leg back, slowly push hips forward while slightly arching back until stretch is felt in front of the right hip. Hold 30 seconds and repeat.



Recovery Begins As Soon As You Finish

Our goal is to help you start your post-race recovery safely, until you can get back home and begin your post-race routine.



Keep walking after you finish your race

During the race, blood has been redirected to the working muscles in your legs and away from internal organs. It's important to continue walking after you finish your race for about 20 minutes to allow the body to re-equilibrate your blood supply. Otherwise, you may feel nauseous (not enough blood flow to the stomach) or dizzy and weak (not enough blood flow to the brain).

Replenish your body's fluids

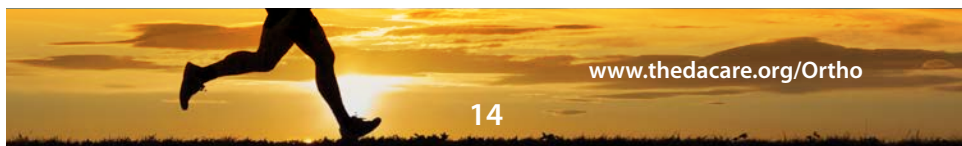
Begin drinking fluids slowly at the finish line as soon as your body is able to tolerate without feeling nauseous. Sports drinks containing electrolytes and sodium are best to replace the fluid and salt your body has lost during the race. Keep track of urination color and frequency after the race to monitor your hydration status.

Slowly add food to restore energy

Begin eating solid food when your stomach feels like it can handle it. Good sources of energy including sodium and potassium are bananas, pretzels, bagels, energy bars and other easily digested high-carbohydrate foods. Studies have shown that your muscles are primed to take in and recharge their energy supply most efficiently in the first few hours after the race. Eat slowly, and be aware of any nausea to avoid throwing up.

Take a lukewarm or cool shower

Avoid hot showers until you are completely rehydrated, because they can dilate your blood vessels and cause you to get dizzy and pass out. Avoid hot tubs because they will worsen swelling and inflammation in the muscles and joints.



Recovery Begins As Soon As You Finish

Congratulations On Your Run!



Avoid pain relievers

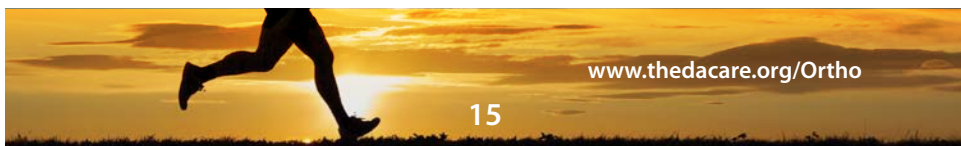
We recommend avoiding any aspirin, ibuprofen (Advil, Motrin), and naproxen (Aleve) until you are rehydrated as indicated by passing light yellow or colorless urine. These products can be harmful to the kidneys if taken when the kidneys are stressed by dehydration and prolonged exercise.

Ice up for sore muscles

For sore muscles and joints, we recommend applying ice or cold packs for 20 minutes 3-4 times per day for the first 2 days post-race. Remember not to apply ice directly to your skin. Gentle stretching for the calves, quads, hamstrings, IT bands, glutes, and low back can begin right away.

Take good care of your skin

Skin care is important to limit damage and prevent infection. For scrapes, chafe, and open blisters, washing twice daily with soap and water, applying antibiotic ointment and covering with a bandage for the first few days is best. For larger blisters that have not broken, apply cold packs and consider carefully draining them. If you choose to drain them, we recommend washing with soap and water, then wiping with alcohol, letting the alcohol dry, and then popping them with a sterile needle near the edge of the blister. Take care of the popped blister as noted above and watch carefully for any signs of infection. If you see redness or pus develop, seek medical attention.



Post Race Injury Assessment Clinic

Wednesday, Sept. 27
4:30pm - 6:30pm



ThedaCareTM
Orthopedic Care

820 E. Grant Street, Appleton, 920.831.5050

No appointment necessary.

The specialized sports medicine team will be available to assess your injury and provide recommendations to help you recover and return to running safely.

www.thedacare.org/Ortho

*If more advanced exam and diagnostics needed, additional costs may apply.