



RUNNING TRAINING PACKET

to Avoid Injury and Perform Better

Physical Therapy & Sports Medicine Centers is Connecticut's largest private-practice physical therapy company with locations throughout the state serving more than 20,000 patients every year.

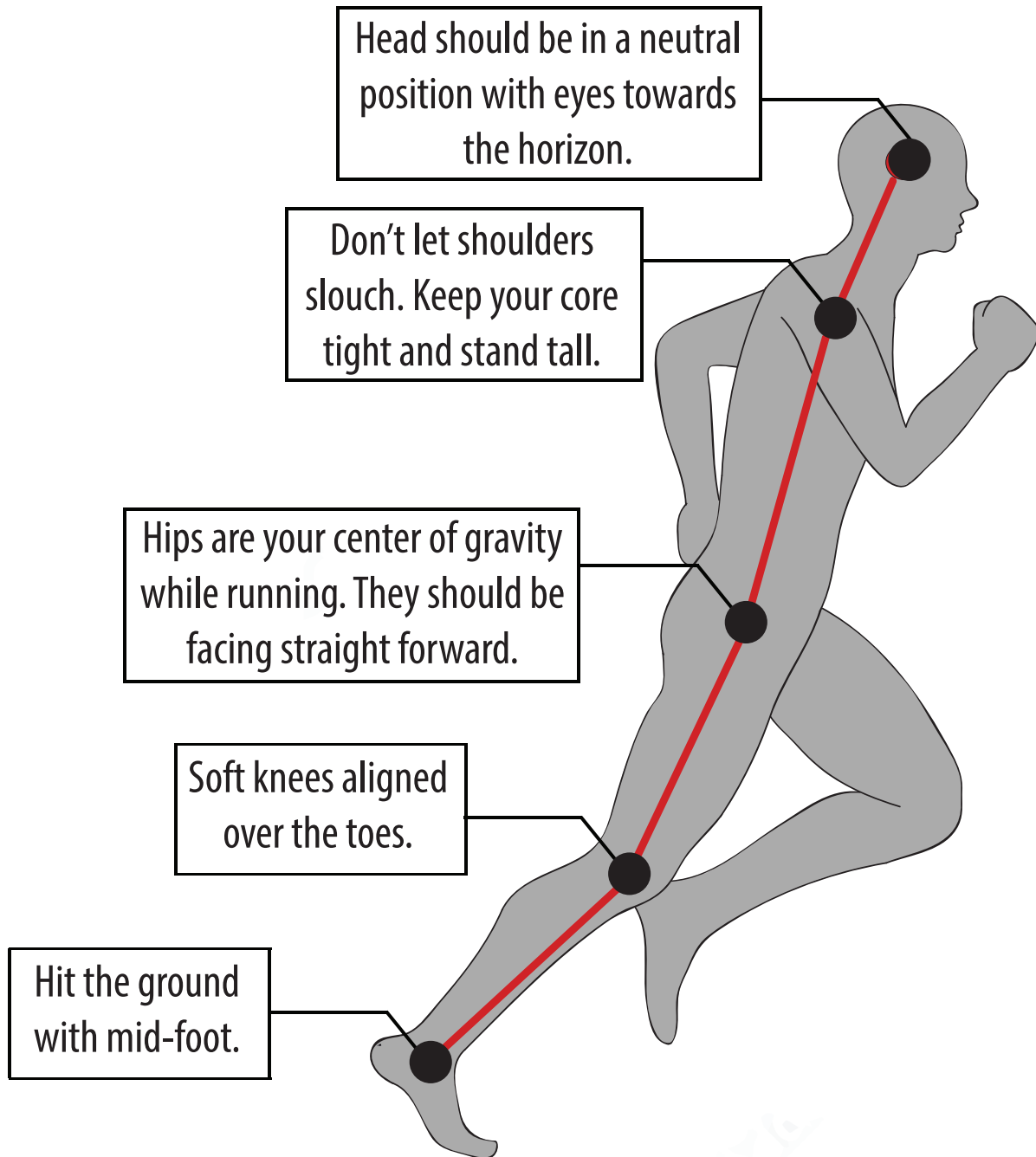
Physical therapists share information on:

- Running Form
- Exercises and Stretches
- Common Running Injuries
- Running Nutrition

For more info, visit our website at www.PTSMC.com



RUNNING FORM



RUNNING CADENCE

Running cadence is the number of steps you take per minute. The higher your running cadence, the less force is exerted on your body when your foot hits the ground. Meaning, you should focus on having a higher cadence rather than having larger strides.

Benefits of Higher Cadence

- Higher speed
- Less risk of injury
- Less energy used



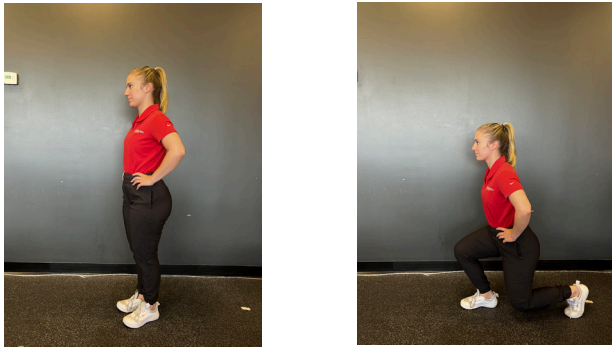
TRAINING PROGRAM

Complementing a running program with strength training benefits your performance and helps you to avoid injury. Your body absorbs a lot of force while running, and strength training can help to prevent overuse injuries by increasing the ability of the muscles and connective tissues to handle higher loads. This offsets undue stress on cartilage, joints, and bones.



EXERCISES

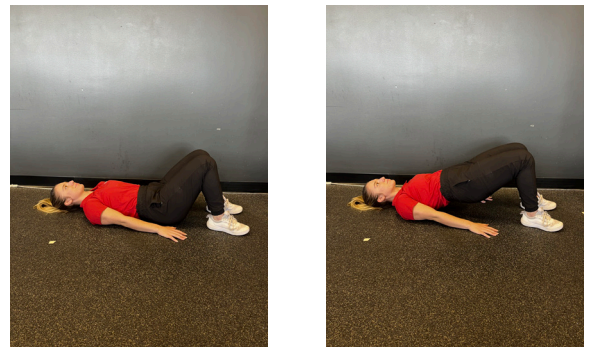
REVERSE LUNGES



Strengthens: Glutes, Core, Quads, and Calves

Stand with your feet hip-width apart. Step your one foot back and lower into a lunge, keeping your other knee bent at 90° and above your ankle. Engage your core and maintain upright posture throughout the movement.

GLUTE BRIDGES



Strengthens: Glutes, Hips, Core

Lie on your back with your knees bent and feet flat on the floor. Brace your core then lift your hips until your knees form a straight line with your upper body. Lower back down. For an extra challenge, try single leg bridges!

SINGLE LEG DEADLIFTS



Strengthens: Glutes, Hips, Hamstrings, and Back

Stand with your feet hip-width apart. Raise one leg out behind you and shift your weight to the other. Hinge at the hips to bend forward while extending your leg behind you. Engage your core, keep back flat and hips level.

STEP-UPS



Strengthens: Glutes, Hips, Hamstrings, and Back

Stand on top of a box with feet hip-width apart. Keep the left foot on the box and slowly lower the right one to the ground. Bend the left knee as the right foot reaches the group. Pause, then drive back up through the left leg to bring the right leg back to the box.



DYNAMIC WARM-UP AND STRETCHES

WARM-UP PURPOSE

A dynamic warm-up before runs and workouts moves a joint through its full range of motion and prepares muscles for more intense exercise. Benefits of a dynamic warm-up include:

- Increased blood flow
- Improved performance
- Decreased risk of injury
- Decreased muscle soreness

SAMPLE WARM-UP

1. Walking Knee Hug x 10 each leg
2. Lateral Lunge x 10 each leg
3. Walking Hamstring Stretch x 10 each leg
4. Walking Groiner + Reach x 10 each leg
5. Hip Openers x 10 each leg
6. Leg Swings x 10 each leg
7. Butt Kicks x 10 each leg
8. Power Skips x 10 each leg

1



2



3



4



5



6



7



8



STRETCHES



Hamstring Stretch



Calf Stretch



Calf Foam Rolling



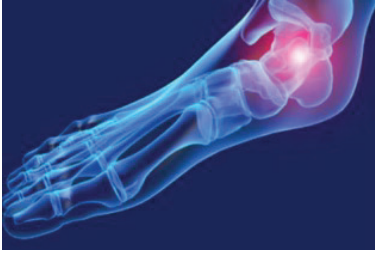
Hamstring Foam Rolling

Stretching is important to avoid injury, particularly after extended periods of inactivity. This can be done with static stretching of the muscles or with tools such as a slant board, foam roller, or massage stick. A static stretch is a low-intensity stretch that is held without movement for at least 15 seconds performed post-activity. Relax your muscles and breathe deeply. Areas that you should focus on stretching: quads, hamstrings, glutes, and calves. Foam rolling can be helpful before your run can help to loosen tight muscles.



COMMON RUNNING INJURIES

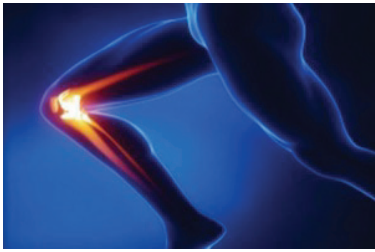
PLANTAR FASCIITIS



Symptoms of Plantar Fasciitis:

- Stabbing pain in the bottom (heel) of your foot
- Pain is strongest when you first wake up
- Pain occurs at the beginning of exercise, gradually decreases

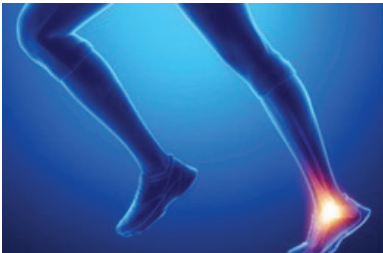
IT BAND SYNDROME



Symptoms of IT Band Syndrome:

- Pain on the outside of the knee or the hip
- Pain up and down the leg
- Pain when walking up stairs
- Snapping or popping at the knee

ACHILLES TENDINITIS



Symptoms of Achilles Tendinitis:

- Pain and stiffness along the Achilles tendon in the morning
- Pain along the tendon or back of heel that worsens with activity
- Severe pain the day following exercise or activity

INJURY PREVENTION TIPS

Toss out worn-out running sneakers. Generally, you should replace your running shoes every 300-500 miles.



Complement your running program with strength training to strengthen muscles to better handle stress.



Gradually increase training and include a dynamic warm-up and cool-down.



Are you suffering from an injury?
Don't wait! Give one of our clinics a call
so that a physical therapist can assess
and diagnose your condition.

Visit our website at
www.PTSMC.com



RUNNING NUTRITION



The main focus is fueling your body and feeling good - not fat loss.

Eating the right type of food at the right time plays a big role in performing optimally and feeling your best before, during, and after your run.

WHICH FUEL?

Carbohydrates

Main fuel source of the body; most important for athletes.

Best sources: fruits, veggies, grains, dairy (also a source of protein & fat), potatoes, corn

Occasional: chips, cookies, candy, cake, soda

Protein

Repairs and rebuilds muscles that are broken down during physical activity.

Best sources: poultry, beef, pork, fish, eggs, beans, tofu, dairy, nuts & seeds (also contain fat)

Fat

Provides energy at lower intensities and helps us feel satisfied.

Best sources: unsaturated fats like those found in olive oil, nuts, seeds, fish, avocados and saturated fats like those found in animal products.

Occasional: trans-fats found in many pre-packaged baked goods

HYDRATION

It's important to drink before, during, and after physical activity.

- Follow the general rule of drinking at least half your body weight in ounces per day
- Don't wait to drink until thirsty - it means you're already dehydrated
- Water is sufficient for activities lasting less than 60 minutes
- Sports drinks are appropriate for activities lasting more than 60 minutes and/or take place in hot and humid weather



WHEN?

Before Training

3-4 Hours Before

Full meal containing carbs, protein, and fat

30-60 Minutes Before

A snack consisting mostly of carbs, a little fat, and protein. Fat can possibly upset your stomach too close to your run.

Snack Ideas

- 1 slice whole grain toast with 1-2 tbsp peanut butter & banana
- 1/2 cup low-fat Greek yogurt with 1/2 cup fruit
- 1 piece of fruit & handful of nuts
- Protein shake with milk, protein powder (optional), and fruit

During Training

If you are doing <60 minutes of activity, you don't need to consume anything while running. If your run will last >60 minutes, you should eat 100-300 calories from carbs every hour.

Ideas

- Gatorade
- Sports chews/gummies
- Fruit (less convenient)

After Training

Within 30 Minutes

Eat protein and carbs

Within 2 Hours

Eat a full meal with carbs, protein, and fat

Within 30 Minutes Ideas

- 1/2 cup low-fat Greek yogurt with 1/2 cup fruit
- Protein shake with milk, protein powder (optional), and fruit