

E X C E L P H Y S I C A L T H E R A P Y



RUN SMART RUN HAPPY

Your guide to improving running
performance & preventing injury



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EXCEL PHYSICAL THERAPY

SERVING THE BOZEMAN AND MANHATTAN COMMUNITY

We are a specialized physical therapy practice that collaboratively provides the most effective manual, orthopedic and sports therapy treatments, allowing us to efficiently return patients to their highest level of comfort and functionality. With two offices – one in Bozeman and the other in Manhattan, Montana – we are conveniently located to serve patients in the Gallatin Valley..

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RUNNING RELATED INJURIES ARE COMMON

Running related injuries are unfortunately too common; 3/4 of runners will sustain a running related injury in a given year.

The majority of running related injuries are overuse injuries due to the repetitive load of running.

The development of a running related injury is multifactorial.

Often involving factors such as: the experience of the runner, the number of days per week one runs, the strength & flexibility of the runner, the number of rest days one has, the runner's diet, and the runner's overall health.

The goal of this book is to help you mitigate your risk of a running related injury & improve your running performance. So you can run happy if you're running smart ;

What Does Repetitive Loading Really Mean??



30 minutes of running =
5,000 steps average

4x bodyweight/step
(PFJ specifically)

2x bodyweight/step
(Lower body)



RUNNING RELATED INJURY

As the development of a running related injury is multifactorial, preventing injury involves many things:

Load Management
Capacity
Running Form
Recovery



LOAD MANAGEMENT

For a runner, Load Management is comprised of the volume and intensity of running. The volume of running is the distance or amount of time of a run. The intensity of running is the speed of the run.

A injury can occur when a runner's volume, intensity, or both, are progressed more quickly than their body can adapt to.



LOAD MANAGEMENT:

Properly managing your running load means a *gradually* progression. Often, this mainly targets progressing running volume.



THE 10% RULE:

A simple way to safely progress running volume using the 10% rule. Progress your weekly running volume by 10% each week. For example, if run a total of 30 miles this week, progress your total running volume by 3 miles next week (for a total of 33 miles). The 10% increase can be divided across several runs or added to a long run.

As you progress your running load, make sure to pay attention to signs your body is not adapting (lingering soreness, excessive fatigue, etc)



BUILDING CAPACITY:

Capacity is your ability to handle the load of running. Building capacity will improve your performance and protect against injury .

Strength training has been shown to both improve performance and decrease injury in runners. Improving your strength is one of the best ways to build capacity.

SQUAT

Incorporate some form of weighted squat: back squat, front squat, or goblet squat



DEADLIFT

Incorporate some form of weighted deadlift: traditional deadlift, RDL, or single leg RDL



CALF RAISE

Incorporate some form of weighted calf raise: double leg, single leg, or incorporated into a step-up





RUNNING FORM:

Running form dictates how and where the load of running is distributed . Therefore, your running form influences your performance & what injuries you can develop.



OVERSTRIDING:

Overstriding is one running form fault, that leads to decreased performance and excessive load. Overstriding occurs when a runner's leg reaches out in front of their body too much.

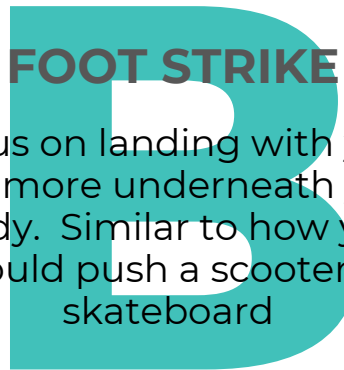
TRUNK LEAN

Increase your trunk by hinging forward from your ankles



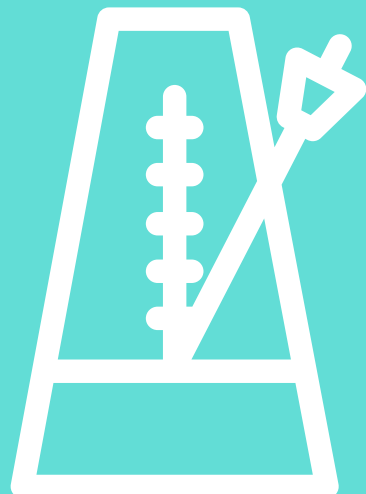
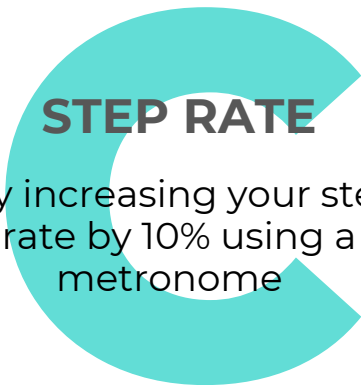
FOOT STRIKE

Focus on landing with your foot more underneath your body. Similar to how you would push a scooter or skateboard



STEP RATE

Try increasing your step rate by 10% using a metronome





RECOVERY

The ability to handle the load of running, is not only your capacity, but also your ability to recover. Therefore, your recovery after your run is just as important, if not more, as your body's capacity.

REHYDRATE

Drink to thirst when running, adding electrolytes if running >1 hour.



REFUEL

- During runs >1 hour ingest ~60 grams of carbohydrates per hour.
- Refuel within 45 minutes *after* your run with a carbohydrate/protein/fat snack

RECOVER

Get 7+ hours of quality sleep *and* build in 2+ recovery days from running





The idea that the harder you
work, the better you're going
to be is just garbage. The
greatest improvement is
made by the man or woman
who works most
intelligently.

-
Bill Bowerman

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RUN HAPPY

The Running Clinic at Excel Physical Therapy can help with any of the above areas *and* help you Recover if you do get injured.

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APPOINTMENT AT:
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