



FITTER, FARTHER, FASTER RUN (WALK /JOG) SEMINAR

Presented by:
Dr. Michael Schmolke, Dr. Sherra Sanders,
Dr. Chris Yavis, Kristi-Lynn Dupont RMT



Your Speakers



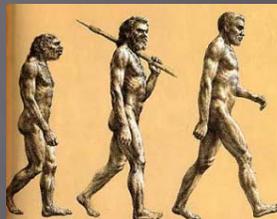
- ▣ Your speakers:
 - ▣ Dr. Michael Schmolke - Chiropractor
 - ▣ Dr. Sherra Sanders - Chiropractor
 - ▣ Dr. Chris Yavis - Chiropractor
 - ▣ Kristi-Lynn Dupont - RMT

*We change lives through inspiration,
empowerment, and excellent health care delivery*



Running and Walking

- ▣ These are primal, innate, and fundamental activities of healthy living to human beings
- ▣ Why:
 - ▣ Part of our neurological quest of development of our brain, our muscles, our skeletal structure and health
 - ▣ Our intended way of commuting on planet earth
 - ▣ Promote vital stimulation to the brain and in return trigger vital activation of our upright postural systems of balance control, brain neurotransmitter balance, and cardiovascular/circulatory system
 - ▣ We need to do this as much as possible

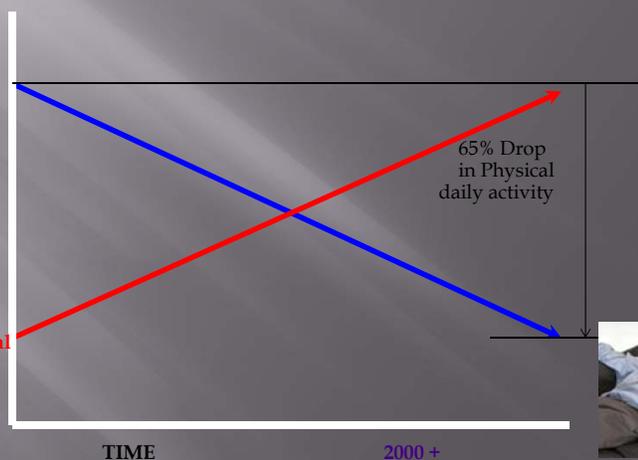


The activity paradox



Physical Activity

Emotional & Mental
Stress Levels



Pre-1900's

TIME

2000 +

20% of all Canadians report NO PA and 40% are considered sedentary



What do you need to get started?

- **A vision** of improved health, or ongoing great health through lifestyle
- Flexible, appropriate clothing and quality walking or **jogging shoes**
 - Possibly **orthotics** if needed
- **Safe pathway or route** you can utilize, either indoor or outdoor
- **Sufficient water** before, during and after
- Consider **a partner or friend** to join you, or join a club for the motivation and consistency factor
- Pedometer for tracking distance and steps



Common roadblocks

- | | |
|---|---|
| □ Injuries to feet and arches from overuse or weak arches | □ Metatarsalgia, Plantar Fasciitis, Neuroma's |
| □ Weakness in the gluteal muscles > Knee pains | □ Iliotibial Band Syndrome |
| □ Muscle Overuse Injuries | □ Plantar Fasciitis, Medial Tibial Stress Syndrome |
| □ Repetitive Strain Injuries | |



Other issues we can face

- ▣ **Dehydration**
 - Cramping, early fatigue
- ▣ **Restless leg Syndrome**
 - Irritable, restless, uncomfortable legs.
- ▣ **Patellofemoral Syndrome**
 - Anterior knee pain worsened with stairs
- ▣ **Achilles Tendonitis**
 - Heel chord pain and pressure.
- ▣ **Body Weight (lbs)/2 = # fluid oz H₂O/day**
 - Add 4 oz per 15 min cardiovascular activity
- ▣ **Electrolyte recovery**
 - Na, K, Mg, Ca
- ▣ **Balanced muscular development**
 - Quad, ham, abd, add
- ▣ **Sufficient flexibility and tissue compliance**
 - Dynamic warm-ups, rolling out & stretches



**On The Road Again:
Treating Running Injuries**
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RUNNING INJURIES

FOOT
– Plantar Fasciitis

LEG
– Medial Tibial Stress Syndrome

KNEE
– IT Band Syndrome



RUNNING INJURIES

Etiology of Repetitive Stress Injuries

1. Training Errors
 - Sudden increase in mileage, intensity, hill training, change in training surface and return from layoff, weight gain, increase in plyometric work.
2. Alignment errors
 - Muscle imbalance, fixations, natural body angles, gait distortions, and improper footwear.





RUNNING INJURIES

Severity of Overuse Syndromes

- Grade I – Pain comes on after running but doesn't restrict distance or speed (Cat 3)
- Grade II – Pain comes on during a run but does not restrict distance or speed (Cat 2)
- Grade III – Pain comes on during a run and restricts distance or speed (Cat 2)
- Grade IV – Pain is so severe it prevents running (Cat 1)
- Grade V – Pain is continuous during ADL's (Cat1)



PLANTAR FASCITIS



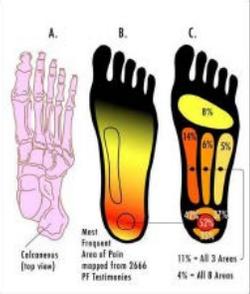
- MOI: overuse syndrome that is the result of excessive and repetitive loading
- M/C in joggers, tennis, soccer and basketball players



PLANTAR FASCITIS

Clinical Presentation

- Usually unilateral
- Worse getting out of bed or upon standing after sitting some time
- Pain may be in several areas
- When severe, patient will limp and bear weight on the lateral edge of the foot



A. Calcaneus (top view)
 B. Most frequent Area of Pain mapped from 2046 PF Testimonies
 C. 11% - All 3 Areas
 4% - All 8 Areas





PLANTAR FASCITIS

Active Rehab

- Roll – Piriformis, IT band, dorsi-flexors, arch and calves. Frozen tennis ball rolling – 3 sets @ 1 min
- Stretch – The Achilles with a bent & straight knee!
 - apply moist heat to the calf, initially hold stretches for 1 min and work up to 3 min, do active ROM between stretches, 3 reps, 2x/day.
- Activation & Mobilization - Towel scrunches – 3 sets to fatigue w/1 min rest between sets, Glute med – clams and crabs.
- Strengthening - Foot roll-outs - 3 sets to fatigue, 1 min rest between sets, Standing leg kicks – 3 sets, 25 reps

CONTROL OVER-PRONATION FROM THE GLUTES DOWN TO THE FEET





PLANTAR FASCITIS

Exercise Considerations

- See Chart for running recommendations
- Minimize or eliminate sprinting, incline training, & plyometrics
- Incorporate pool jogging & cycling to maintain cardio fitness



MEDIAL TIBIAL STRESS SYNDROME

- MOI: overuse injury that involves repetitive jumping, running on hard surfaces, inadequate footwear or improper training regimen
- AKA – shin splints
- M/C in joggers, aerobics, dancers, BB & VB players





MEDIAL TIBIAL STRESS SYNDROME

Clinical Presentation

- Most tenderness is typically along the posteromedial edge of the distal 1/3 of tibia
- Frequently a localized area of swelling is present
- Symptoms are often bilateral and proportional to activity levels
- Pain on heel strike
- Maybe able to "run through the pain" initially but when severe walking will be painful.



MEDIAL TIBIAL STRESS SYNDROME

Supports & Taping

- Compression wraps
- Orthotics





MEDIAL TIBIAL STRESS SYNDROME

Active Rehab

- Roll - Piriformis, IT band, lateral retinaculum, calves, tibialis anterior
- Stretch - gastroc & soleus
- Activation & Mobilization - Tibialis anterior, subtalar joint
- Strengthen - Wall raises - 3 sets 15 reps, Heel step downs - 3 sets 15 reps, Foot Roll-outs - 3 sets 15 reps,

Exercise Considerations

- Modify training surface
- See Chart for running recommendations
- Incorporate pool jogging & cycling to maintain cardio fitness
- Minimize or eliminate sprinting & plyometrics until pain free



IT BAND SYNDROME

- MOI: overuse injury aggravated by training errors and improper running form
- M/C - runners





IT BAND SYNDROME

Clinical Presentation

- Lateral knee pain
- May feel snapping at the lateral femoral condyle
- Painful to stand after sitting long periods of time
- Down stairs or downhill more painful than up
- Presents with a stiff legged gait when severe.
- Pain can also present below the knee at the Gerdy's tubercle.



IT BAND SYNDROME

Support

- Compression brace
- Orthotics

Active Rehab

- Roll - IT band, TFL, hip flexors, piriformis, lateral retinaculum
- Stretches - IT band, quads, hip flexors, piriformis
- Activation & Mobilization - Glute Med, L/s
- Strengthening - Glutes!!!
- Correct any gait distortions & over-pronation



IT BAND SYNDROME

Exercise Considerations

- Gait Modification
- Decrease or eliminate all quick flexion/extension exercises
- Modify training surface
- Proper warm-up
- Incorporate swimming & cycling to maintain cardio fitness
- Minimize or eliminate plyometrics until pain free
- Gradually increase jogging time and speed



ON THE ROAD AGAIN!!!

There is one common thread
amongst the injuries we looked at
today.....

GLUTE MEDIUS WEAKNESS



BUILDING A REHAB PROGRAM

- FOAM ROLLING
Increase Elasticity
- STATIC STRETCHES
Increase Length
- ACTIVATION EXERCISES
Neuromuscular Re-education
- STRENGTHENING EXERCISES
Stabilization

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BUILDING A REHAB PROGRAM

Foam Rollers

- Sizes
- Density



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BUILDING A REHAB PROGRAM

STATIC STRETCHES

- Glutes
- Hamstrings
- Hip Flexors
- Quads
- Calves

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ON THE ROAD AGAIN!!!

Activation Exercises

– Clams



Common Mistakes:

1. Rolling backwards on the knee lift.
2. Forgetting to activate the core.
3. Going too fast on the leg lowering portion.





ON THE ROAD AGAIN!!!

Activation Exercises

– Crabs




Remember:

1. Keep the knees slightly bent and the toes turned slightly inward.
2. Keep the knee over the ankle (it will want to drift inward).
3. Focus on the slow movement of the trail leg.
4. Keep your chest & booty up!





ON THE ROAD AGAIN!!!

Strengthening Exercises

Plantar Fasciitis

- Foot roll-outs
- Standing leg kicks

Medial Tibial Stress Syndrome

- Wall raises
- Heel step downs
- Foot Roll-outs

IT Band Syndrome

- Glute Med Variations
 - Internal & external rotation
 - Supine bridging with abduction
 - Straddle step-ups





ON THE ROAD AGAIN!!!

Strengthening Exercises

- Begin with general strengthening exercises, then move towards more sport specific exercises.
- Use Eccentric Loading!!!
- Increase speed of movements
- Include various planes of movement
- When incorporating rehab into a general exercise program use this order: power, core, then more!



Bare Foot Running

PROS	CONS
<ul style="list-style-type: none"> ▣ Great if done throughout your life, childhood onwards ▣ Variety of running styles influence this (e.g. heel strike, ball-heel-ball, toe-ball only) ▣ Must be introduced gradually over months!! 	<ul style="list-style-type: none"> ▣ If starting late, high probability of foot injuries including strain, sprain, bone edema, fractures, nerve injury

The New Runners Check-List

Head

Head should be looking forward about 10 meters in front of you. Chin tucks in slightly.

Torso:

*Maintain good posture with a slight forward lean.

*Make sure that you have an active torso. The torso should not rotate, this motion will fight against your forward propulsion.

Arms:

Insure that the tandem swing of your arms does not rotate across your body.

* Keep your shoulders relaxed and down. Tense and elevated shoulders limit the ability of the rib cage and lungs to expand fully.

Hands:

*Cup your hands with the thumb resting on the side of your hand. Making tight fists wastes energy while open fingers or " doggy paddle" hands causes unnecessary drag.

*On the back swing of the arm, the hands should brush the side of the shorts. This insures no drag is created between your arm and your body.

The New Runners Check-List

Knees:

*Flexion and knee action depends on the distance. Huge knee action for sprinters, very little for distance runners.

Feet:

Very controversial. There is an argument that no one should heel strike as it slows momentum and increases chance of injury, although many runners do.

Other things to keep in mind:

* Keep a quick stride rate: physiologically our bodies are designed to keep a stride rate of 90-100 steps per minute.

The foot should land under the pelvis, every time one lands in front of the body it acts as a brake to your propulsion forward, and increases your risk of injury.

Too short of stride length and the body uses too much oxygen because we are inefficient at that pace.

The psyche of a new runner

- ❑ Be okay with where your skills are at.
 - Disappointment with performance
 - Embarrassment of starting a new sport.
- ❑ Intervals are not for rookies 😊
 - Walking isn't there because you cannot run any more, its to train efficiently
- ❑ Is your inner dialogue making or breaking your run?
 - What do you think about during a run?
- ❑ Every day cannot be your best.



Incremental Training

- ❑ Incremental training is a good idea because too much too quickly can be trouble (not just MOI or RSI's)
 - Recent studies suggest that the heart muscles will leak a heart specific enzyme (cardiotropin) into the blood due to **heart stress** in 60% of marathon runners at levels up to 90% elevation above normal; in the other more extreme training athletes (40%), researchers saw elevations of 115% cardiotropin which is suggestive of **heart damage**.
 - Recommendations suggest people should over-estimate the time needed to reach your goals (competitive persons), and train purposely at a lower intensity.



From Couch to 5km schedule

SHAPE		BEGINNER 5K TRAINING SCHEDULE						
WEEK	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	
1	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 RUNNING 10:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 12:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 1 mile	Rest Day	
2	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 15:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 17:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 1.5 miles	Rest Day	
3	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 20:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 20:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 2 miles	Rest Day	
4	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 20:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 20:00 Run/walk	Rest Day 🏃 CROSS-TRAINING 0:30 (Optional)	🏃 2.5 miles	Rest Day	



Wrap up

- ❑ Nutrition is key for recovery, high energy, and longevity as you become more fit and regular
- ❑ Rest and recovery should not be underestimated
- ❑ GAIT Scans are a must in this modern world.
- ❑ There are lots of resources in our community, on the internet, and in our bookstores.
- ❑ Have a training journal or log book to track your progress and chart your program!
- ❑ Any questions?



Just remember...



There is light at the end of the tunnel

Thank you



Upcoming workshops

- ❑ Golf Workshop
- ❑ Best of Me Part III
- ❑ Screening of new documentary "Bought"
- ❑ Pinot Noir
- ❑ Raising Healthy Children
- ❑ Bone & Joint Health
- ❑ Abundant Immunity

