



RUN (WALK/JOG) SEMINAR

Presented by:
Dr. Michael Schmolke, Sarah Kennedy-Dicks RMT,
Brett Lypchuk; Dr. Janice Patterson TCM/Acu



Your Speakers



Your speakers:

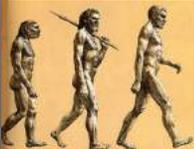
- Dr. Michael Schmolke - Chiropractor
- Dr. Brett Lypchuk- Chiropractor
- Dr. Janice Patterson – Acupuncturist
- Sarah Kennedy Dicks – RMT

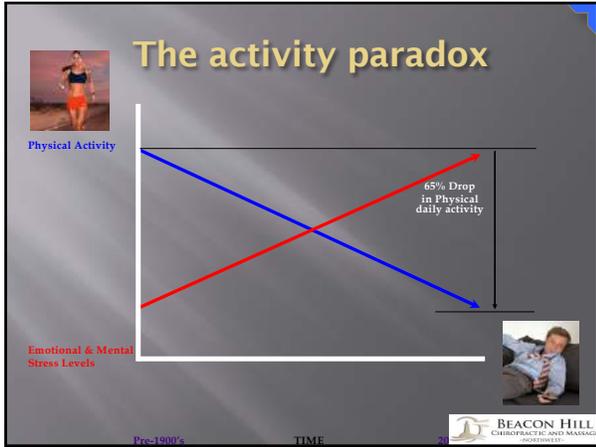
*We change lives through inspiration,
empowerment, and excellent health care delivery*



Running and Walking

- Are primal and innate activities of healthy living to human beings
- Why:
 - Part of neurological development of our brain, muscles, and our skeletal structural health
 - Our intended way of commuting
 - Stimulation to the brain and in return vital activation of our upright postural systems, balance control, and cardiovascular/circulatory system
 - We need to do this as much as possible
 - EVS 150min/week + 2



- ### What do you need to get started?
- A **vision** of improved health & fitness
 - Flexible, appropriate **clothing**
 - Quality walking or jogging **shoes**
 - Possibly **orthotics** if needed
 - **Safe pathway** or route, 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
 - Pedometer or FitBit - **track** distance & steps
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- ### Sources of running injuries
- The cause of most running injuries:
1. Training errors
 - too much too soon; sudden distance increases, intensity increases, hill training.
 - Change is training surfaces; return from layoff
 - Weight gains, heavier plyometric work
 2. Alignment errors
 - Muscle imbalances; joint fixations; natural body angles;
 - GAIT distortions; improper footwear
 3. Nutritional shortcomings
 - Lack of preparation; dehydration; general confusion!
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Assessment



A runner's physical assessment should include:

- Postural evaluation
- Biomechanical evaluation (foot, knee, hip, back)
- GAIT evaluation (digital or slow video)
- Balance & strength testing
- Baseline cardiovascular testing & EVS status

Footwear evaluation
Self video



7 different runners injuries

1. Runners Knee (patellofemoral pain syndrome)
2. Achilles Tendinitis
3. Plantar Fasciitis
4. Shin Splints (medial tibial stress syndrome)
5. Iliotibial Band syndrome
6. Stress Fractures (foot, lower legs)
7. Patellar Tendinitis




Runner's Knee

Clinical Presentation

Tenderness around/behind knee, usually when walking up/down stairs or running downhill

Caused by repetitive force of pounding on pavement or down hill grades

Muscle imbalances & weak hips put extra strain on knees

Weak arches can cause or to this condition



Patellofemoral Pain Syndrome



Achilles Tendonitis

Clinical Presentation

Tenderness & swelling of the Achilles tendon
 Often due to rapid mileage increases, grade increases, poor footwear
 Tight calves & flat feet are factors
 Weak arches are risk factors

Active Rehab

Stretching calves (2 forms)
 Check footwear & GAIT analysis



Achilles Tendon
 Inflammation
 Tear
 Calcaneus



Plantar Fasciitis

Clinical Presentation

Usually unilateral. Pain can be in several areas
 Worse getting out of bed or standing up after prolonged sitting
 if severe, people will limp and shift weight to outside of foot

Active Rehab

Rolling kinetic chain
 Stretch & strengthen
 Orthotics for overpronation
 Minimize sprinting; incorporate pool running




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



Shin Splints

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



Area of pain in medial tibial stress syndrome
 Area of pain in anterior compartment syndrome
 Fibula
 Tibia
 Anterior compartment



Iliotibial (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.

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

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Stress Fractures

Clinical presentation:

- Small/cumulative micro fracturing that leads to intense pain in lower leg(s), feet, or toes.
- Chronic and worsening pain that leads to intolerant pain during walking/running.
- Time off running is a must to allow recovery.
- Supplements to assist healing and diet/habit review is good



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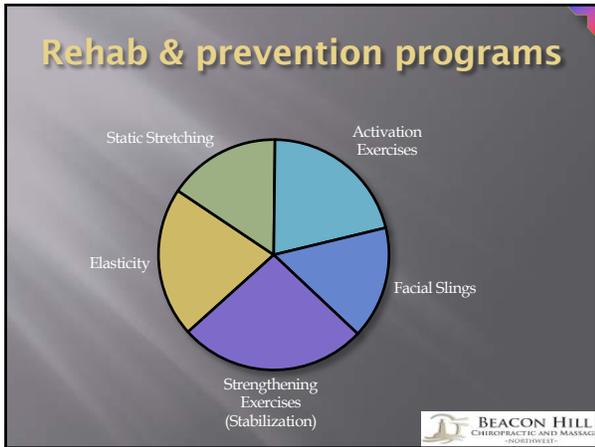
Patellar Tendonitis

Clinical presentation:

- Repetitive micro strains causing tears & inflammation in the patellar tendon.
- aka Jumper's knee, is simply due to over stress
- usually reduced training load (speed, distance, inclines), controlling for overpronation, strengthening hamstrings and quads/calves solves this problem



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Elasticity Enhancement

Foam Rollers

- circulation
- adhesion breakdown
- pliability

Foot Rollers

- circulation
- scar tissue
- icing tool




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- ### Stretches for runners
- Lying Hamstring Stretch (use towel for deep stretch)
 - Lying gluteal stretch (figure 4)
 - Groin Stretch
 - Gastrocnemius Stretch (upper calf) Heel drop
 - Soleus Stretch (lower calf) Bent knee heel drop
 - IT Band Stretch (lying or standing options)
 - Hip Flexor Stretch (runners lunge)
 - Standing Quadriceps Stretch
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Fascial slings

Fascial slings are directional lines of support and directional integration of many tissues combined together (ligaments, muscles, tendons, connective tissues).



Clinical problems from fascial slings:

- Habits and routines impact fascial slings
- They mold to our most common postures
- Fascia conforms to repeated habits/activities



Cross training for the runner

- HIIT (High Intensity Interval Training) is a great way to gain the cardio endurance, power, strength and core work to prepare for your run
- Should include 20 sec intervals of high intensity with 40 second intervals of active recovery.
- Cardio power using large muscle groups, power moves, rotational moves, and shock absorbant power pushes. If possible use a step and other obstacles to train for uneven terrain and possible obstacles depending on where you plan to run.
- The Strength component Should include Compound leg work including Glutes, Quads, Hamstrings, Adductors and Abductors, both endurance and power pushes. Upper body work including Core ab/back, chest and back, with ground to floor training.
- A HIIT workout can last 20-45 minutes and should be completed 2 times each week along with your running program.



Incremental Training



- Incremental training is a good idea. Too much too quickly can be trouble for your heart!

Recent studies suggest that the heart muscles will leak a heart specific enzyme (cardiotropin) into the blood due to **heart stress**. Researchers saw

- 60% of marathon runners at levels up to 90% above normal;
- Extreme (40%) of marathon runners at levels up to 115% cardiotropin above normal: This suggests **heart damage**.

People should over-estimate the time needed to reach your goals (competitive persons). Purposely train at a lower intensity.



What to look for in a running shoe

Don't be fooled by cost alone!

Learn these tests:

- o Dish rag test
- o Heel pinch test
- o Sole fold test
- o Shelf test
- o Ball (width) test



Minimalist/Barefoot running

- o Becoming a trend verses a fad
- o Mimics a more natural form of running
- o Foot striking focuses at metatarsal heads vs heel
 - o Not for ppl with plantar fascial or achilles pain
- o Individuals require 6 wks + of adaptation
 - o If not then you place yourself at a higher risk of injury
- o To prepare, walk 30 min/day for one week, then introduce slowly
- o Grass vs concrete





Bare Foot Running

PROS

- o Great if done throughout your life, childhood onwards
- o Improved shock attenuation
- o Decreased energy expenditure
- o Increased proprioceptive ability
- o Reduced running injuries
- o Increased muscular strength
- o Decreased foot deformity

CONS

- o If starting late, high probability of foot injuries
- o Injury from surface debris
- o Thermal injury
- o Increased shock at impact
- o Common injuries include strain, sprain, bone edema, fractures, nerve injury



The Runners Check-List

- Head - should face forward ~ 10 meters in front of you. Chin tucks in slightly.
- Torso - Maintain good posture with a slight forward body lean.
 - Keep an active torso. The torso should not rotate, this motion will fight against your forward propulsion.
- Arms - Insure tandem swing of your arms does **not** rotate across your body.
 - Keep shoulders relaxed and down. Tense and elevated shoulders limit the ability of the rib cage and lungs to expand fully.
- Hands - Cup your hands. Thumb resting on the side of hand.
 - Tight fists wastes energy. Open hands causes unnecessary drag.
 - On the back swing of the arm, the hands should brush the side of the shorts. This insures no drag between your arm and your body.
- Knees - Flexion and knee action depends on the distance.
 - Huge knee action for sprinters, very little for distance runners.
- Feet - Controversial. Heel strike or not? Increase or decreased chance of injury?
- Stride - Human optimum stride rate is 90-100 steps/min.
 - The foot should land under pelvis. Feet landing in front of the body acts as a brake to your propulsion forward, and increases risk of injury.



Before you start running checklist

1. Physical assessment- check for muscle imbalances, flexibility, postural analysis, and GAIT analysis.
2. Nutrition and supplement needs- Are you eating a balanced diet, and incorporating proper supplements
3. Mental health- are you ready for good days and not so great running days. Do you have your motivation markers in place to keep you on track, what if injury or strain occurs.
4. What is your running goal- Choose small steps of planning and give reasonable training times (example how many weeks to prepare for a 10K etc...) injury will occur if you try to cram in training for a race too fast
5. Create a plan- Running days/week, distance and running style and where will you be training.
6. Visit your health care team to help you prepare and be sure to tell them about your new running goal.



The psyche of a runner

- Be okay with where your skills are at.
- Intervals are not for rookies
- Is inner dialogue making or breaking your run?
- Every day cannot be your best.





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 1000-1500 steps stretching	Rest Day stretching	Rest Day 1000-1500 steps 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day
2	Rest Day 1000-1500 steps stretching	Rest Day 1000-1500 steps	Rest Day 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day
3	Rest Day 1000-1500 steps stretching	Rest Day 1000-1500 steps	Rest Day 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day
4	Rest Day 1000-1500 steps stretching	Rest Day 1000-1500 steps	Rest Day 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day 1000-1500 steps 1000-1500 steps	Rest Day 1000-1500 steps	Rest Day

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Upcoming workshops

- Golf Workshop May 7, 2019
- Intermittent Fasting/Detoxification May 28, 2019