

# The Myth & Reality of Treating Runners

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Podiatrist 1992, 2000 & 2004 Olympic Trials & Nike Oregon Track Club

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## What is Sports Medicine?

Many Myths in Medicine: Sports Medicine no different!

Stretching: no scientific proof for prevention

10% rule

Rest, boot, eventually will get better

Let pain be your guide

Certain conditions like Plantar fasciitis and Achilles tendinopathy get better in a year

## What I learned from treating Olympians

Sometimes surgery is better sooner

A lot of voodoo out there. REALITY:

1. Real rehab (myth of stretching)
2. ESWT/RSW (aka shock wave)
3. Alter-G treadmill
4. Surgery

## 30 pts in 2008 Olympic Track & Field Trials:

9 used orthoses

8 had surgery

5 had ESWT/RSW

20 used Alter-G Treadmill to continue or resume training

14 made the Olympic team

40 pts in 2012 Olympic T & F Trials

16 made Olympic teams

11 had “ESWT”(RSW)

7 had surgery

11 used orthoses

9 used Alter-G for their rehab

2016 Olympics: 15 Olympians

One Gold, One Silver, Two Bronze, one 4th, 5th, 6th & 7th, & four finalists

11 had surgery, 12 ESWT

43 in Olympic trials

### **“Life-preserver Phenomenon”: get better quicker, don’t dwell**

The reality...

Body parts wear out: heart, eyes, prostate, uterus, etc.

So do tendons & joints!

MORAL: RATION YOUR RUNNING!

### **Some considerations for youth athletes**

Yes, there are growing pains...growth plates are cartilage portion of bones that grow

These areas can get irritated ie: calcaneal apophysitis (aka “Sever’s disease”), Osgood-Schlatter’s

No permanent damage ever documented

OK to Run!

### **Some tips:**

Running speed-work (intervals) in the AM is associated w more injuries

Concrete is harder than asphalt which is harder than dirt

The less number of steps/min is associated w over-striding and injury

Should have >80 steps (1 foot strike)/min – elite athletes have 90+ (count 1 foot for 30 secs & X 2)

“Terrible Toos/Twos”

Too much too soon

Two different changes ie inc of mileage and intensity

Avoid peer pressure (seen more in group training)

So what to tell runners?

Injury is part of any sport particularly when you do too much too soon

Run on softer surfaces

Increase gradually (use time)

Caution if injury history

And...

Cadence: Page 205 of Born to Run

Runner improved his speed by trying to match his cadence to a clip-on metronome that went 90 beats/min

The less number of steps/min is associated w over-striding and injury

Should have >80 steps (1 foot strike)/min – elite athletes have 90+ (count 1 foot for 30 secs & X 2)

Runner with Orthoses?

Myth: Flatfeet need motion control shoes

Another Myth: Hi-arched feet need a curved, “non-motion control shoe”

Reality: very few runners need motion controlled shoes

Only evidence for shoe recommendation is perceived comfort!

Reality: Radial Soundwave

### **“Radial Soundwave”(RSW):**

3 Treatments 1 wk apart

Plantar Fasciitis

Achilles Paratendinosis & insertional tendinosis,

“Shin splints” (medial tibial periostitis)

Patients can continue w sports

RCTs: the best evidence we have!

## **EARLY INTERVENTION?**

Benefits of RSW

Continue to be active

Prospective study on 74 Achilles Tendinopathy patients shows > 75% improved after 1 yr (Saxena et al JFAS 2011)

No anesthetic required, can still have surgery later

Treatment of plantar fasciitis

Stretching arch, night splint

Arch supports or more stable shoes

Rolling on frozen water bottle

## **Next phase: injection, custom inserts, soundwave**

If all else fails, surgery (93% success rate)

And by the way...Surgery for Plantar Fasciitis

93% successful in returning runners back to sport

Saxena, Foot & Ankle Int 2006

Achilles tendinopathy

Evaluate/change (higher heel) shoes?

Avoid bent knee stretching

Eccentric strengthening

Ice bucket

Inserts

Soundwave

All else fails: surgery 95+% successful

Stress Fractures

Relative rest: 1-12 wks from running

May need casting, boot

Ice, no anti-inflammatories

Address biomechanics, weaknesses

Check Vit D level!

Bone stimulation & shockwave for some

Surgery for certain types

“POLICE”

British J of Sports Med 2012

Protection

Optimal Loading (Alter-G)

Ice

Compression (Support)

Elevation

My Pneumonic: “POLICED”

2017 Journal of Foot & Ankle Surgery

Protection (bracing, splint, tape etc)

Optimal Loading (antigravity TM etc)

Ice (can be with compression)

Core (strengthening)

Education (exercises, coaching, evidenced based)

Diet (Vitamin D, other factors)

### **Alter-G Treadmill:**

Faster RTA after Achilles Surg JFAS Saxena & Granot

What about prevention?

Stretching? Never been proven (can try roller, slower “dynamic” warm-up)

Strengthening? Correct muscles

Proper shoes: minimalist, maximalist

Proper form: “Pronation is not the evil, but over-striding is!”

Can see [www.amolsaxena.com](http://www.amolsaxena.com), [www.smiweb.org](http://www.smiweb.org), [www.aapsm.org](http://www.aapsm.org)

“Everyone’s an athlete, some just don’t know it yet”- George Sheehan, MD

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Thank You!

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