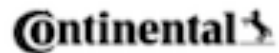




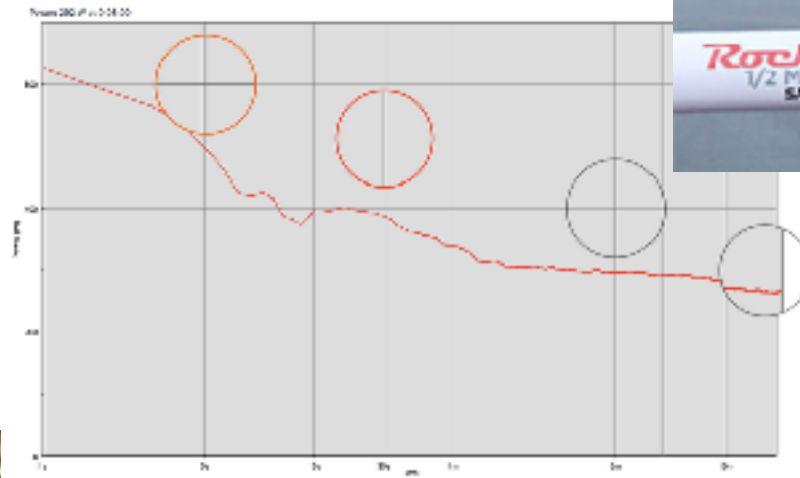
# TRISHOW LONDON 2017: FASTER RUNNING



# HOW have I learned?

Coaching, full-time

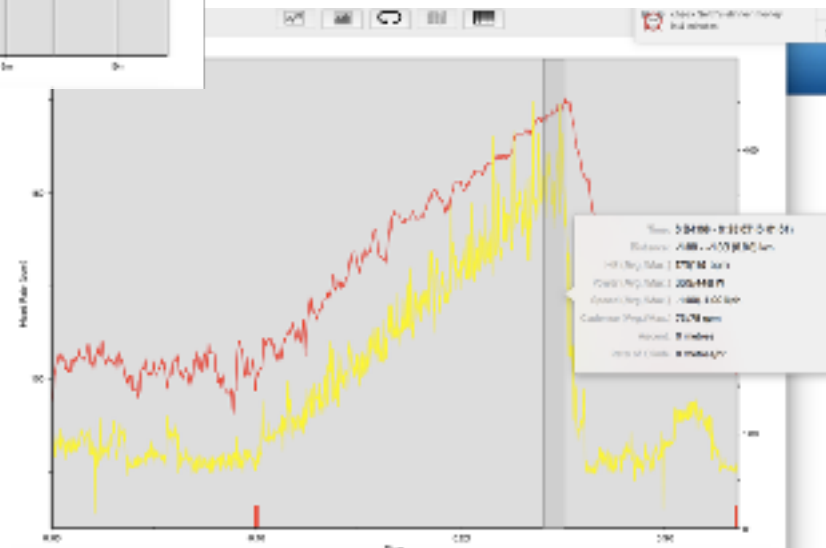
Industry connections



Innovation



Trying things...



Testing athletes

# HOW have I learned?

New technology

Hunches...



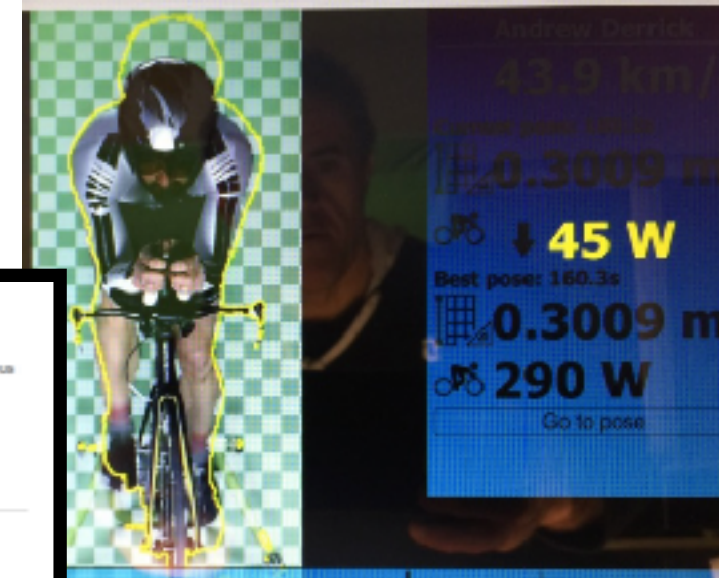
Reading...



Pro friends...



...an awful lot of reading



Writing & talking "the walk

# SWIM, BIKE... FOOT

Triathlon defines a speed “RUN” the other two are just “modes”

*(a) This means it is “okay” to do things that are not running in training.*

*(b) You may never be technically “running” but still complete a triathlon.*

*(c) You will slow more due to ageing in running than swim or bike*

# 1st Rule of Smarter Training

## Base level must be 75-90% of time

Base level is 55-80% HRmax or in “low lactate” ZONE ONE predominates in all phases of the year:

*Ironman Cozumel '13 winner “85% base training” (2013).*

*Olympic-distance UK National Squad ~70% below race pace (~2013).*

*Top 10 Olympian - Swim 74% Bike 88% Run 85% in Zone One (2012).*



# BIGGEST BENEFIT?

As you reduce the stress of Zone 2 and 3 accidental training your body will naturally lose weight, and you will therefore run faster still...

Finally feel 100% free from that cough, and was able to get out on bike this weekend for 2½ hours . So it was a 6½ hour week, 81% Zone 1, so happy. Weight also down to 13st, which is as low as it got last year during the main season and as low as it has been for a number of years.

# THE BIG MISTAKES

- **Going too hard too soon**

All interval studies, Elite training plans and their diaries include time to get the muscles warmed-up. Too-hard, too-soon activates “stress” response: walk, easy jog then easy running...

- **Calling low Zone 2 “base” training or steady**

80%HRmax is the Zone 1 limit. Above is stressful “no-mans land” training - if you are meant to be there good, otherwise it truly is junk! You may have to walk hills and take longer. That’s true base training.

- **Not doing sessions to a plan**

It is your training so be in control of session plans, outcomes and future tweaks (route, time of day, training partners, equipment)

## 2nd Rule of Smarter Training

# Quality must be quantified

- **Using planned High Intensity Training (HIT) works best**  
Such as the proven 6 x 4' @ 88-90%HR (+RI of 2 - 4' walk jog)  
This is very potent therefore must be surrounded by pure Z1 days
- **Only do HIT when Low Intensity Training (LIT) is correct**  
So Z2 “lapses of concentration” come out of your HIT allowance  
You should only do HIT if you are NOT injury prone/over-weight.
- **Only add HIT if required for your goal**  
For a beginner, those in “get-around” mode or coming back to training the top of Z1 into Z2 to get “race-ready” (2-3 x 6') is hard enough to achieve race completion and enjoy training.



And train hard... (Biwott 2017)

**20 x 600m**

**1:40 repeats (6m/sec or 13.4mph)**

**200m 40-55sec recovery**

**but easy pace >7:00 & days off**

# THE BIG MISTAKES

- **Randomly doing an interval session or “block”**  
Intervals cannot just be added to volume rises, competitions starting or when recovery or health is chronically affected.
- **Doing an interval that is traditional yet unproven**  
Several are erroneous: e.g. random fartlek; build of speed towards end of a group run; or a time trials to replace “boring” endurance.
- **Failing to let adaptation take priority once work is done**  
If Elites/Top AG only do 1-2 RUN intervals per week how can you do more and add additional “racing” sessions and then properly adapt?

# 3rd Rule of Smarter Training

## Strength Training is essential

- **Make time to keep strength/conditioning:**  
Resistance training (machine, free weights, body weight) and Pilates/Plyometrics(?) NOT random circuit training
- **Make things harder from late WINTER into PRECOMP:**
  - e.g. Use heavier training shoes
  - e.g. Use short hills to develop power and style (e.g. 10 x 40m with easy jog down recovery)
  - e.g. Use DeepWaterRunning (DWR) to make the upper body work harder (whilst legs recover)
- **Lighter-training weeks aid adaptation**  
It makes an athlete gain from training not just have a great training diary but poor performance

# 4th Rule of Smarter Training

## Plan 3:1 Blocks of Training

- **Use technology (paper & pen) or computer to plan:**  
e.g. 3:1 weeks, lighter days (low ZI technique), transition training, non-training days, alternative sports in offseason
- **Use realistic training volume (8hrs; 220 Reader Survey)**

Don't get hooked on a number it will vary: 10, 8, 12, 6

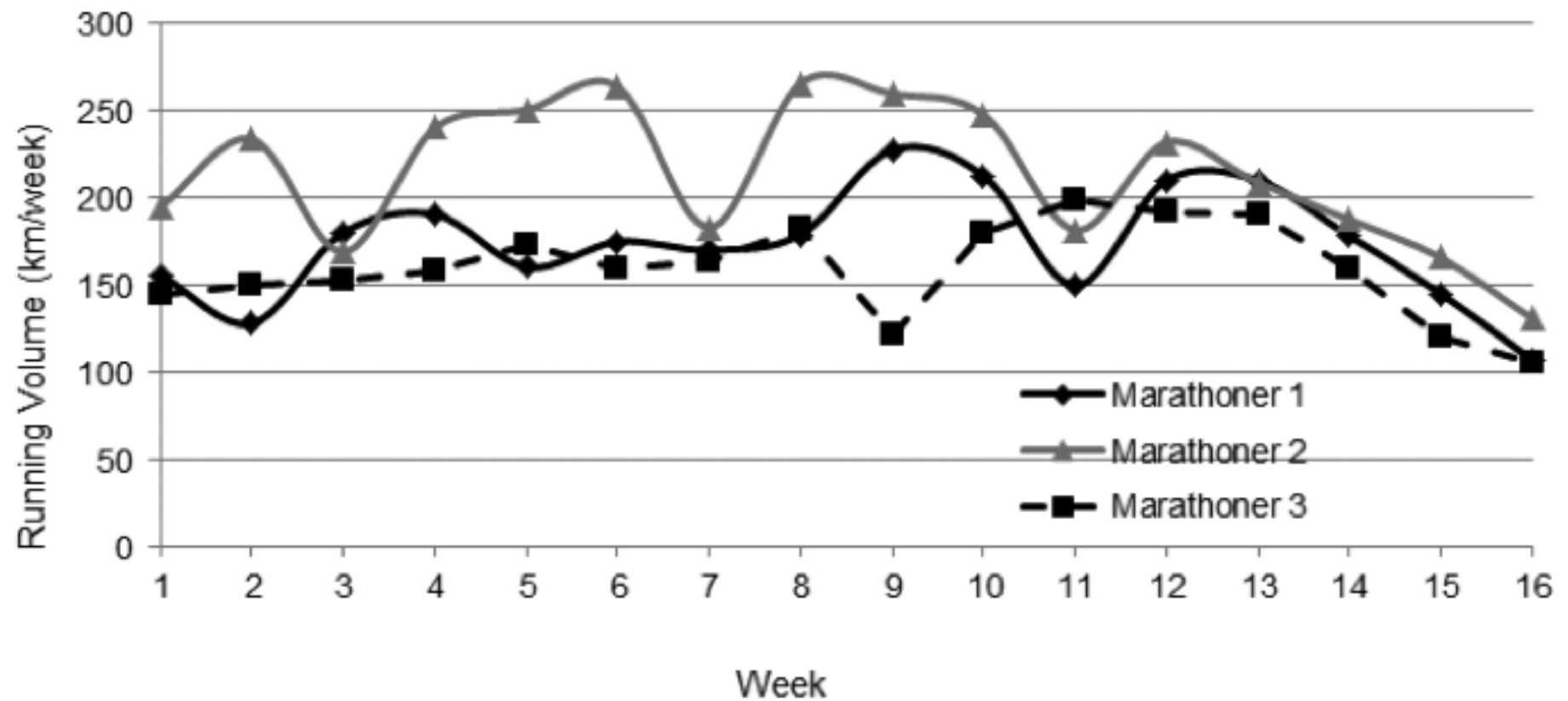
The training bank “builds” your fitness over time.

It's all about ability, consistency and “ABSORBING”

- **Don't go Over-The-Top after your season**  
Less is gained Oct to Dec, more from Feb to April.  
Aim 60%-75% of volume you intend to peak “in-season”

# NEW EVIDENCE

Stellingwerff (2012) Elite marathoners training and practicing feeding.  
Note: 74% training was ZI; notice ebb & flow of volume ~3:1



# 5th Rule of Smarter Training

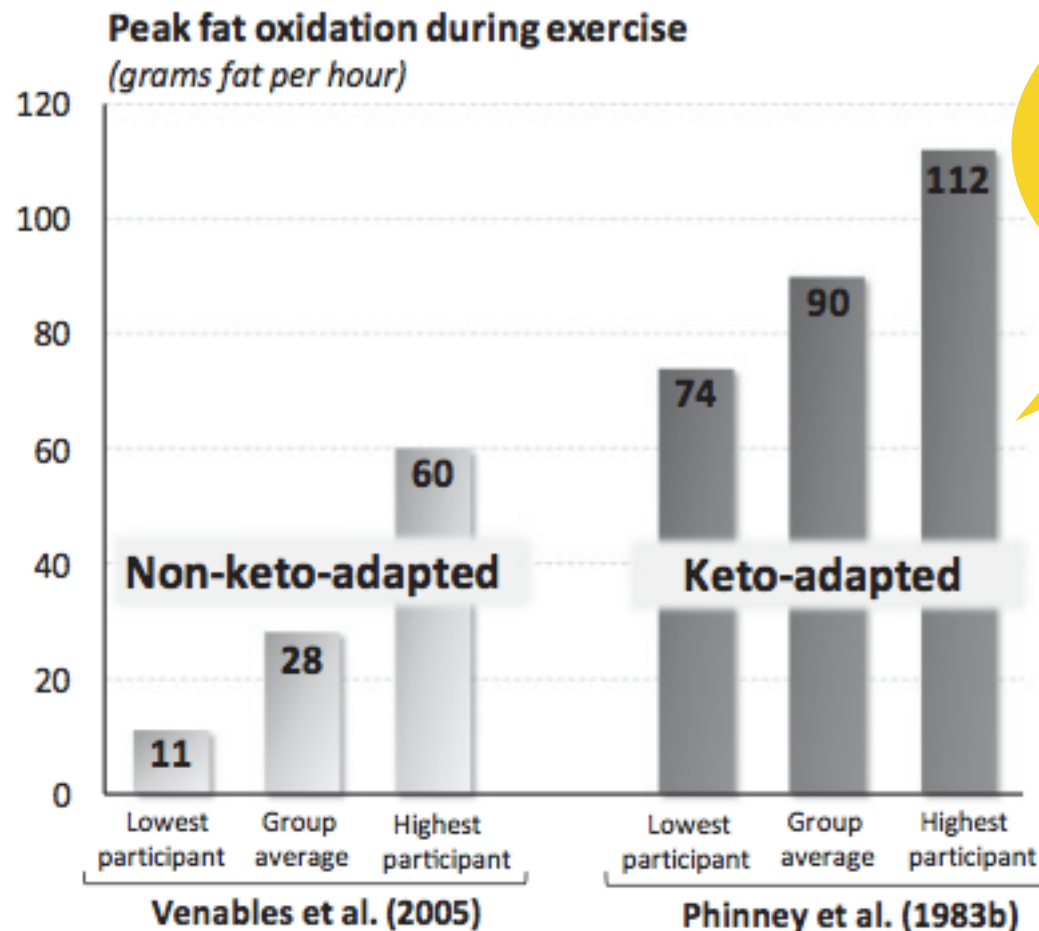
## Nutrients can tweak genes/results

- **Use carbs in training - its the predominant fuel choice**  
Some fasted run sessions help lean-burn ability but do compromise quality and the session must be controlled ZI
- **Protein timing has been shown to help “adaptation”**  
e.g. 100% whey shake (25-40g) soon after sessions and/or evening shakes add extra “easy” quality protein for gains.
- **Assessment of nutrient status is vital**  
e.g. blood profiling for Vitamin D, B12, Folate, Testosterone and others to ensure RBC, immune and health optimisation



# FAT BURN? NEW(?) EVIDENCE

Phinney (1983) Fat adapted athletes verses normal diet



**Just  
10grams a  
day of carbs!**

# THE BIG MISTAKES

- **Missing the basics of diet & sports nutrition**

Nothing is THE super food or pill. Carbs fuel, water hydrates, treats are treats, protein should be spread out, good fats are “essential”

- **Random use of a supplement or super-nutrient**

Most effective results are using an effective dose for a specific time  
e.g. colostrum x 10g x 2 weeks or more = rebuilding/immunity

- **Assuming you “are” fit and you “have a great diet”**

If you don't know your “nutrient status” how can you tell what you need? Try to get a blood profile to find your weak nutrient areas.

e.g. 1990 Student (23): Hbn 13.3 ... 2015 Post Training Camp (47): 15.7

# 6th Rule of Smarter Training

## Nuture not Nuke your body

- **Good Sleep is central to development**  
It's all about ability, consistency and “ABSORBING”  
Elites 10-12h/day and Amateurs 50-hour minimum rule.  
Setting bodies daily pattern with use of light is very effective!
- **Make daily wholefood nutrition a natural habit:**  
e.g. slow release carbs, real-food proteins, quality fats  
Don't try to be perfect just remember YAWYEAD  
(You Are What You Eat And Drink)
- **Body Work/flexibility must focus on your imbalances**  
e.g. poor shoulder mobility, leg tightness or cramping. Finding  
the right expert that is your challenge

# WATCH FOR BIG MISTAKES

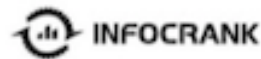
- Not doing the sessions on your plan and training randomly
- Using equipment based on a whim not on science/sense
- Ignoring the importance of strength & conditioning
- Too high vitamin C intake and/or random supplementation
- Seeing body work (e.g. massage) as “elitism”
- Not enough Zone One Training [55% - 80% of max HR]
- Ignoring recovery tools (e.g. foam rollers, compression tights/socks, DWR)

# HUNCHES THAT WORKED

- Training below 80% HRmax and using carb/caffeine products
- Getting weight optimised & very run pace “savvy”
- Quality race shoes for racing with water repellent “coating”
- Colostrum use on a regular basis in- and off-season
- (Pacing using bike power) To run better off the bike in “Tri”
- L-Carnitine supplementation for high-achievers
- Using blood data to tweak diet, supplements, training, lifestyle
- Using light devices such as Lumie & Human Charger
- Being consistent as a result of enjoying the here-and-now

# TAKEAWAYS

- Training  $<80\%$ HRmax must be a key habit, see [www.bit.ly/road2gold](http://www.bit.ly/road2gold)
- Hard work run sessions must be well planned/spaced
- Nutrition timing and type impacts performance gains significantly
- Bodymass/fat measuring technology is a serious but effective tool
- Injury prevention remains A-one priority (Bodywork!)
- Shoe choice, binning old shoes & course knowledge are essential
- Blood profiling and sleep are the new “super-hacks”





# BANK THE BASICS

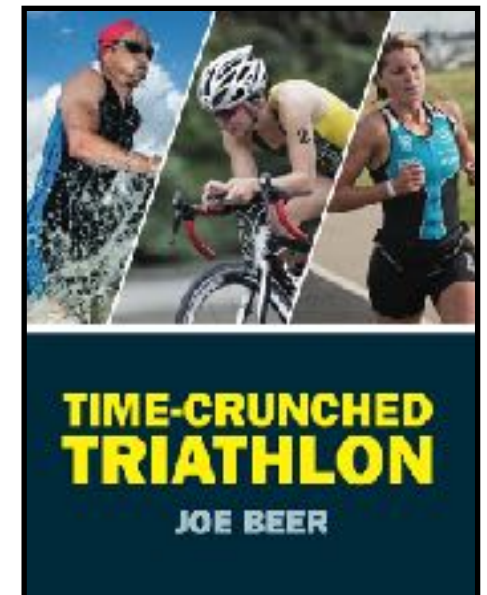


# BASICS are even more important

- **Simple progression of training**
- **Good sleep patterns**
- **Multiple well-spaced & varied meals**
- **Body Work/flexibility**
- **Consistency & Refinement**



Evidence-based Triathlon & Cycle coaching



**220**  
**Triathlon**  
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