Train and race smart(er) with Power and Nutrition
THERE ARE
#NOSHORCYTCUTS
Phil Graves

Lauren Dolan

Shadrack Biwott

Crystal Spearman
The Brownlees

3 in Kona

Forth Edge Profiling
1st Rule of Smarter Training

Base level must be 75-90% of time
Just look at the green bit!
2nd Rule of Smarter Training

Quality must be planned
● Only add HIT if required e.g. a “HIT-limited” A goal
   Enjoy the Z1 and you will get 90% of your peak fitness - for many HIT is better left as strength training

● Only HIT once Low Intensity Training (LIT) is topped-off
   Z2 “lapses of concentration” come out of your 20% HIT allowance
   You may be “HIT” too many days/week already (2-3 is optimum)

● Plan High Intensity Training (HIT)
   Such as the proven 2/wk: 6 x 4’ @ 88-90%HR (+RI of 2 - 4’)
   This is very potent over a 4 to 6/8 week period.
NEW EVIDENCE

Solli et al (2017) Training Characteristics of Worlds Most Successful Female XC Skier
3rd Rule of Smarter Training

Strength Training is essential
4th Rule of Smarter Training

Plan 3:1 Blocks of Train:Adapt
NEW EVIDENCE

Stellingwerff (2012) Elite marathoners training volume ebb-and-flow. Note: 74% training was ZI; they also planned feeding-during-training key sessions
Nutrition
5th Rule of Smarter Nutrition

Nutrients fuel results
Use carbs in training - it's the predominant fuel choice. Some fasted sessions (<2h) help lean-burn ability but do compromise quality and the session must be controlled.

Quality Protein timing helps “adaptation” e.g. around hard resistance training or at night (25-40g). Plus shakes add an extra “easy” quality protein dose to the diet.

Tracking Profile of nutrient status is essential (~£400/yr) e.g. tri-monthly profiling for Hbn, Vitamin D, B12, Folate, Testosterone and others to ensure blood, immune system and health optimisation (around 20% of metrics are out of range - so 1 in 5 things could be better).
Ironman male athlete **low-haemoglobin**: tested, “flagged”, actioned and re-tested.

**RESULT:** up 11.62%
The “craze” for Very Low Carbohydrate Feeding

An attempt to make athletes super fat efficient, lean and faster. Carb drinks, gels etc are a scam by big companies. Blah Blah Blah.
Burke et al (2017) Low carbohydrate, high fat diet impairs exercise economy and negates the performance benefit from intensified training in elite race walkers (10k PB 40-41 minutes)

They got good at fat burning...
NEW EVIDENCE

Burke et al (2017)

but ended up being slower!
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
Positive results are from an effective dose for a specific time
  e.g. colostrum: 10g twice a day x 2 weeks = rebuilding gut damage

● Assuming you “are” fit and you “have a great CLEAN diet”
If you don’t know your “nutrient status” how can you tell what you need? Get ForthEdge blood profile to find your weak nutrient areas.
  e.g.
  1990 Student (23): Hbn 13.3
  2015 Post Training Camp (47): Hbn 15.7
  2018 Winter (50): Hbn: 15.3 and 15.5
6th Rule of the Smart Athlete:

Nuture not Nuke your body
6th Rule of the Smart Athlete: Nuture not Nuke your body

- **Good Sleep is central to development (but don’t stress it)**  
  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!  
  e.g. [HumanCharger](#) 2 x 12minutes per day

- **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  
  To find the right expert is the challenge or making the jump into  
  Pilates, Yoga, Bowen, foam rollering etc.
Technology
7th Rule of Smarter Technology

Kit can make you faster
SAME ADVICE: use your watts wisely

<table>
<thead>
<tr>
<th></th>
<th>% PPO</th>
<th>LIMITATIONS</th>
<th>e.g. 250w female</th>
<th>e.g. 350w male</th>
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<tbody>
<tr>
<td><strong>PEAK POWER</strong></td>
<td>100</td>
<td>ultimate muscle fatigue</td>
<td>250</td>
<td>350</td>
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<tr>
<td><strong>10-MILE TIME TRIAL</strong></td>
<td>80</td>
<td>acidosis pain tolerance pace judgement</td>
<td>200</td>
<td>280</td>
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<td><strong>IRONMAN</strong></td>
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<td>glycogen saving saving up a “marathon” temperature build-up</td>
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<td>192</td>
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<tr>
<td><strong>SPRINT</strong></td>
<td>65</td>
<td>close to acidosis high muscle-tension immediate run-speed?</td>
<td>162</td>
<td>227</td>
</tr>
</tbody>
</table>
Snapshots

(1) 176 W - 0.3308 m²  
Baseline

(2) 205 W - 0.3854 m²  
Cowhorns

(3) 156 W - 0.2932 m²  
Narrow arms

(4) 156 W - 0.2933 m²  
Head dropped
SAME ADVICE: aero, aero, aero
long sleeves, trips, aero tri belt, aero calves guards...
8th Rule

The future is bright
The greatest stories are lived, not told.

Summary
BKM TAKEAWAYS

- Training <80%HRmax must be a key basic habit. #1 BKM
- Diary used to plan: work blocks/tapers/adaptation(?)/race-recovery
- Adapt to your reality not Plan A, others plan or “ideal"
- Diet/Supplements timing/loading/testing will impact performance
- Fasted sessions/low-carb/race-feeding have to be periodised
- Bike power/Drag measuring tech are serious but effective tools
- “Bodywork”, DIY foam rollering etc remains weekly priority
- Blood profiling and HRV are the essentials to Peak Performance
THE BIGGEST MISTAKES

• Following the nopain-nogain #smashitup ethos
• Missing rehab/strength & conditioning or the Zone 1 habit
• Failing to periodise carbs before/during/after training
• Too/high or low vitamin status due to random dosing
• Ignoring simple recovery tools (e.g. rest days, foam rollers, compression tights/socks, massage, naps, warm baths etc)
• Ignoring optimal personal power pacing and all that is “Aero”
• Failing to correctly leverage 4thGEN for “refinement”
www.CoachJoeBeer.com