



A WORKSHOP IN AID OF



children's hospice
SOUTH WEST



GEAR UP YOUR CYCLING

DATE: MONDAY 28TH NOVEMBER
TIME: 7PM-10PM

VENUE: NO.8 CAFE
& DELICATESSEN
LAUNCESTON



Introduction and Welcome

- Thank you for coming and supporting CHSW
- Adi: Number 8 & Paul Howard CGI studios
- Fellow speakers & Order
- Phones- silent/off please
- Questions- we will keep them until the end of each presentation
- Notes -
- Exits -



Improved Cycling Performance:

How a multifaceted, holistic and an outside the box approach can help you too

November 28th 2016

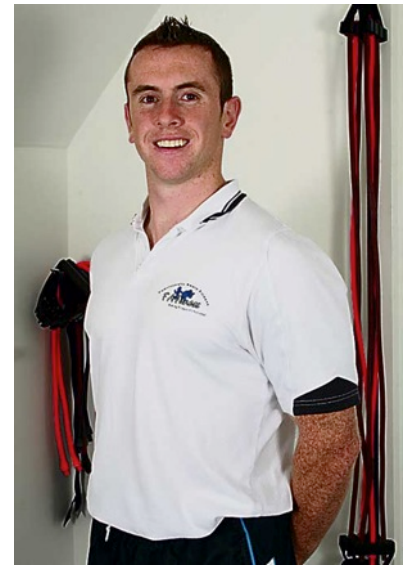
Matt Luxton

The Awkward Bit.....

- Yep, talking about yourself to those who don't know you is awkward!
- Kelly College, Exeter Rugby Academy
- University
- Challenges, Triathlon 4 years ago- Ironman
- Not even moderately addicted to travel
(3 new countries per year)
- Lemon Meringue Pie & Cheesecake

Who Is This Guy?

- ✓ I Loved fitness from a very young age
- ✓ Gym instructor...inductions
- ✓ Degree and YMCA Fitness qualifications
- ✓ Gold's Gym, Venice Beach
- ✓ Started REALLY studying...searching for mentorships and courses on the next level
- ✓ In home PT Phenomenal results with bodyweight and band training
- ✓ IHP Functional Training Specialist- 1 of 3 in Europe
- ✓ Launceston Sports to my current studio



What Have I Done So Far In My Career

- ✓ Worked in the world famous Gold's Gym , Venice Beach
- ✓ Studied with the Worlds Best - fields of nutrition, PT, IHP
- ✓ UK's Most Innovative Fitness Entrepreneur 2012
- ✓ Co – Authored International Best Selling Fad Free Fitness Book
- ✓ Owner of FA Fitness Personal Training
- ✓ Creator of The Blast Fitness Camps
- ✓ £5K a year on education minimum

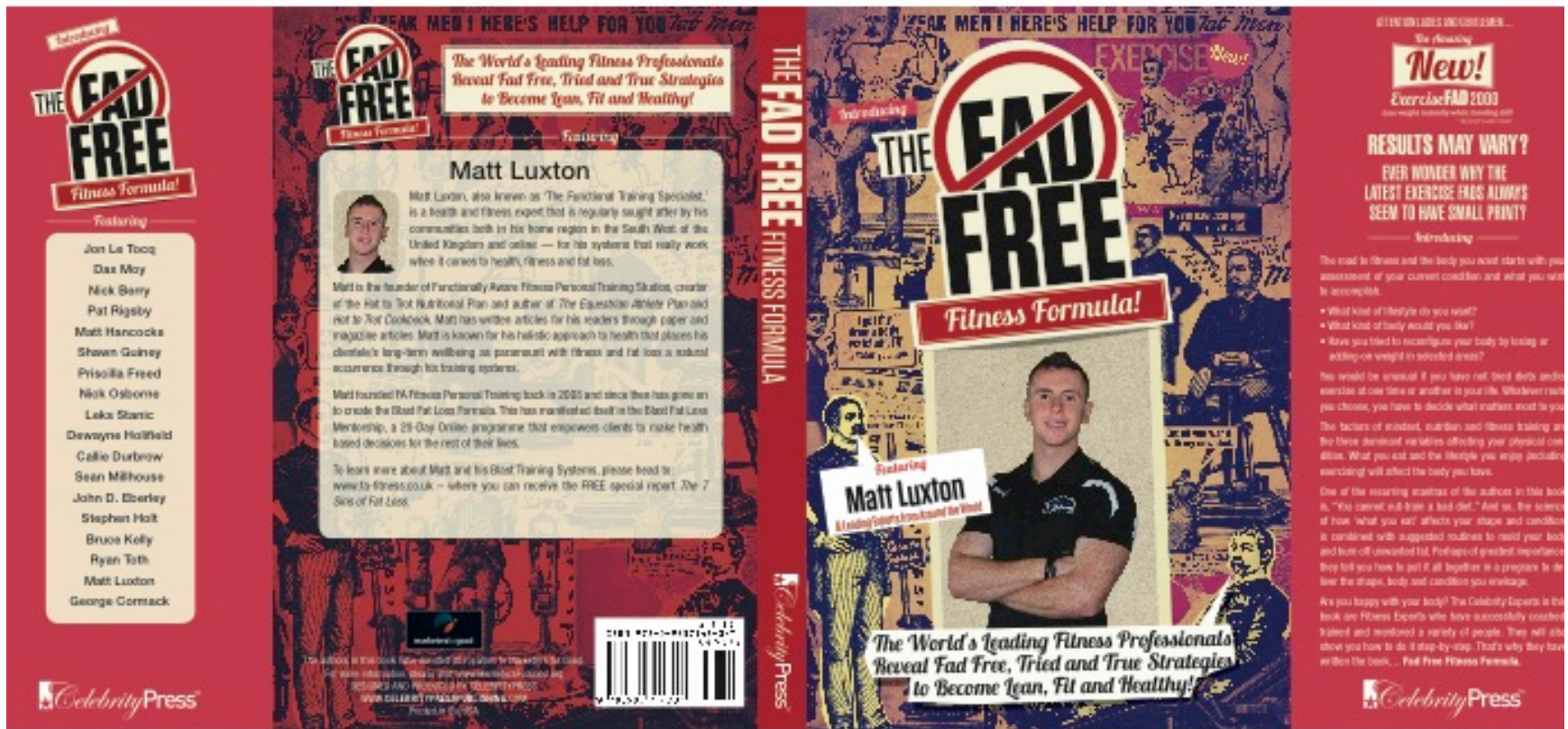


Commitment To Learning

- Thailand March 2011- Masterminding
- Back Pain with Austin Lawrence
- Performance Coaching
- Elimination Diet Coaching Course
- Training For warriors (Edinburgh)
- Private Mentoring in 2011- Dax Moy
- Private Mentoring in 2012- Paul Mort
- Masterminding In Spain in May 2012
- CrossFit Certification – June 2012
- Endocrinology course in October 2012
- Phil Richards Performance- Seminar January 2013
- Masters In Nutrition & Exercise Science 2013-
- P R Performance- Strength & Athletic Development (Oct 2013)
- Mastermind Namibia (Dec 2013) 😊
- Olympic Weight Lifting (September 2014)
- BTN Nutrition Academy (Jan 2015)
- Ironman Certified Coach (April- September 2016)
- Training For Warriors Coaching Greatness Course (October 2016)



Walk the walk.....



Amazon Best Seller September 2012

Voted Cornwall's Best Fitness Instructor 2016

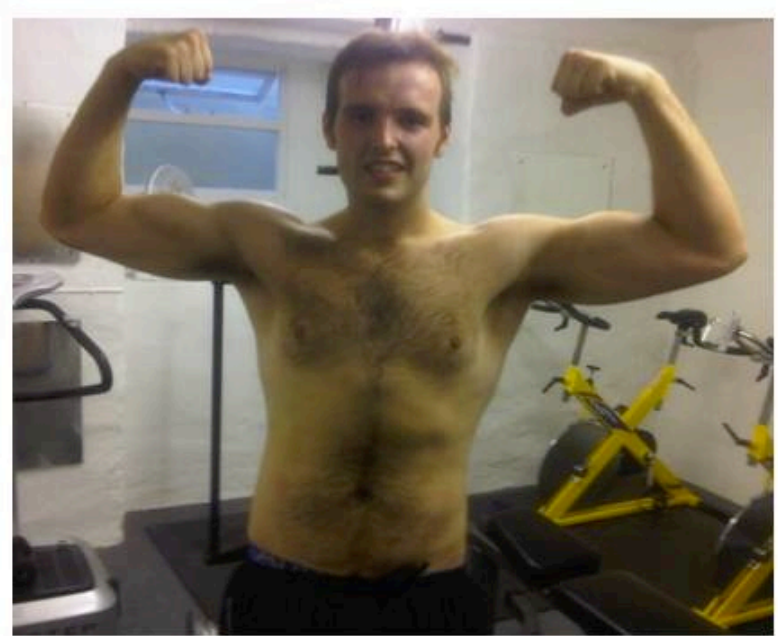


The Great People We Work With

- Two things we pride ourselves on.....
 1. Results
 2. Experience(s)

A few examples of this.....

Results



8 Stones of body fat in 1 ½ years!!

15 Inches & 9 Lbs In 28 Days On The Blast At Home Fitness Camp



First Ironman- 53 and 65 Years of Age



Matt Smith – 9 Hour World Record Holder



Emily Fleury PHOTOGRAPHY

Ali, Jenna, Jen- London Marathon 2015

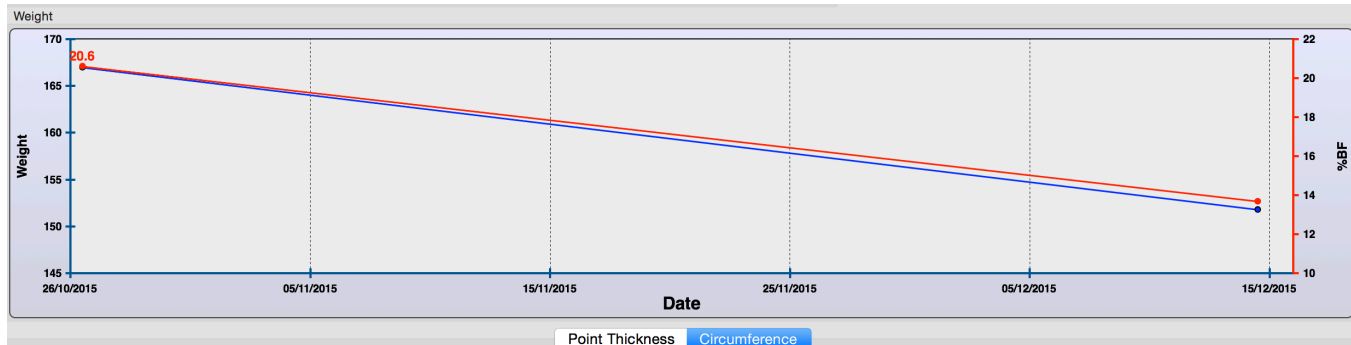


Steve



- Steve winning his Cat 3 race (58 years of age)

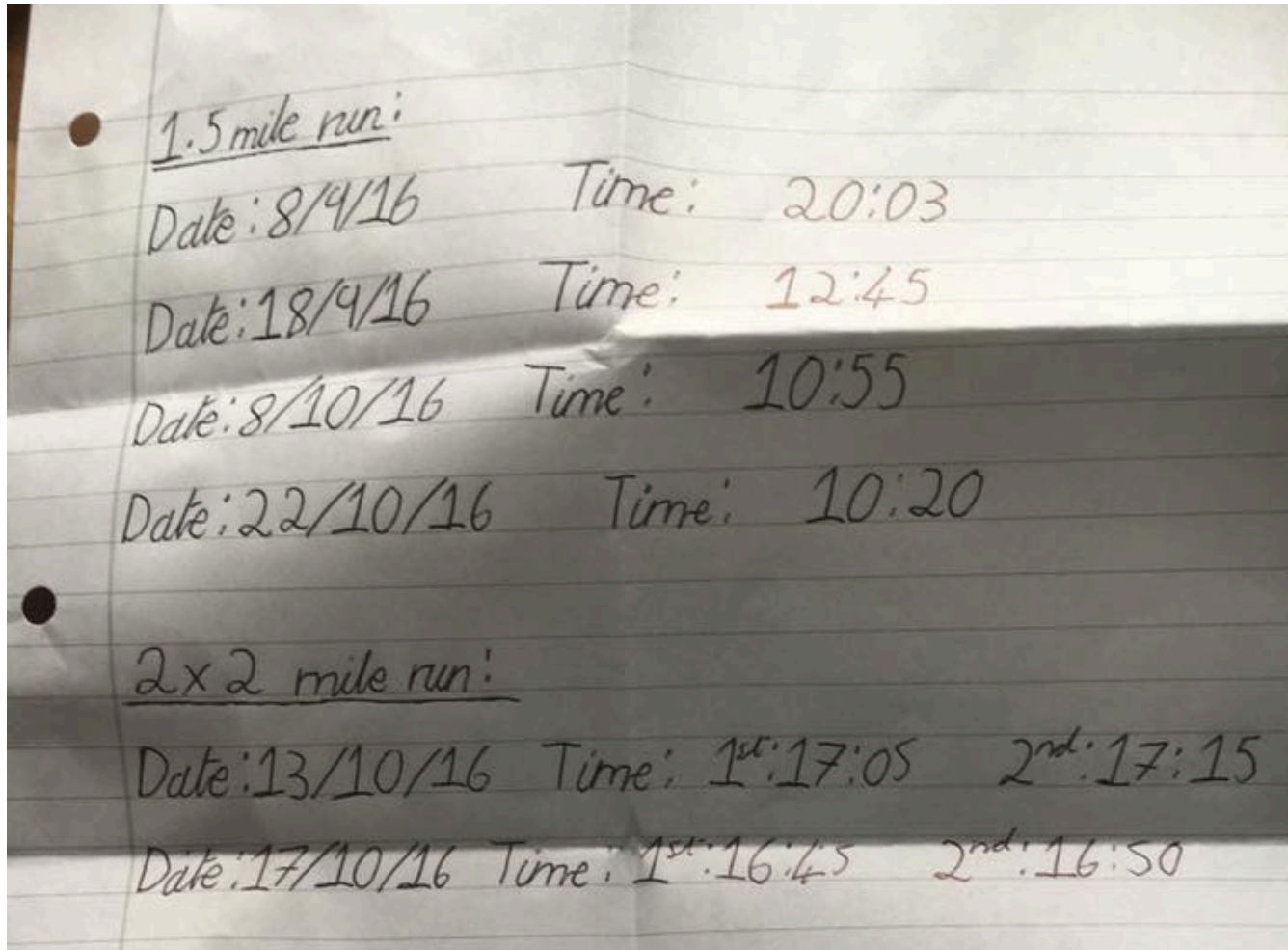
- Dropped 3.5 inches from his waist in the lead up to this race and went from 20.6% BF to 13.7%.



Selection For GB Dragon Boat Team



Joshua- Paratrooper Candidate?



Mark Wiffen

“Best results were cutting bread out of my diet, all joint pain in elbows ,shoulder and right foot went in 4-5 weeks. Never returned.”



Kay-

2 half marathons in 2016 under 2 hours.
She will be doing full marathon in 2017.



Kris



Off the bike strength before heading to Spain to ride for a team

Becky- knocked 20 minutes off her half
marathon time and lost 2 stone this
year

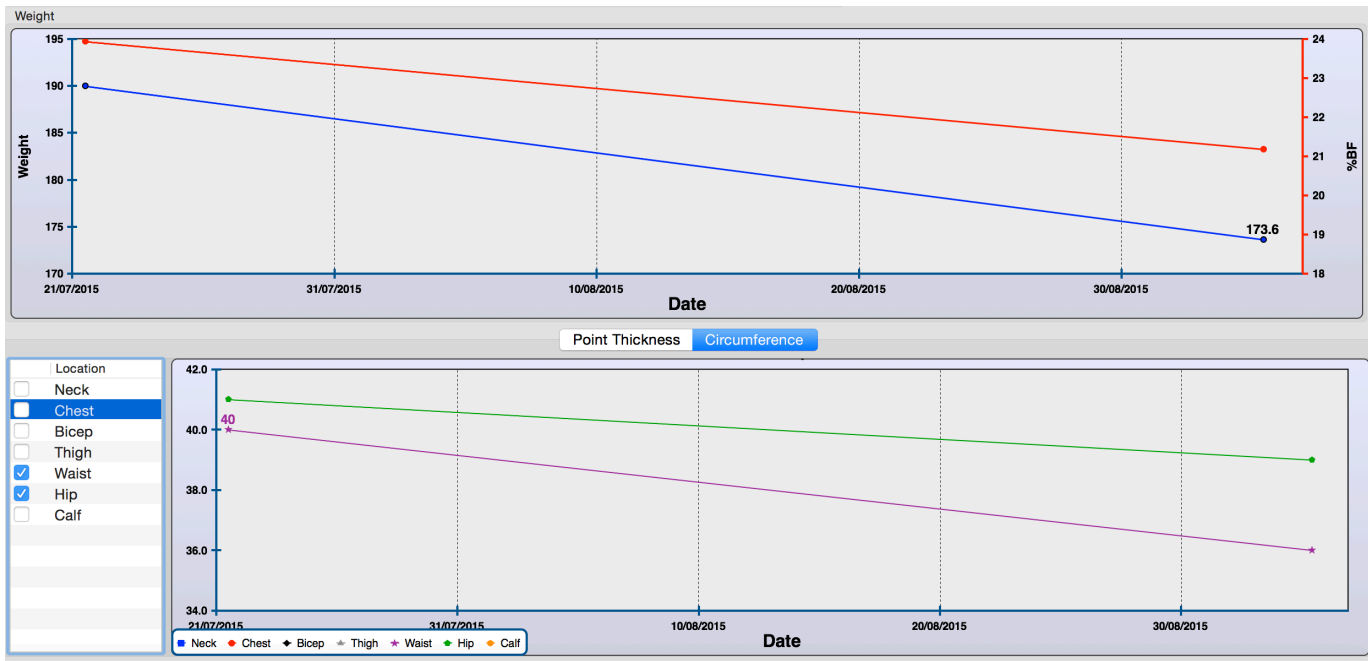


Vin



- 6 hours 45 mins first marathon with a friend
- Approx. 4 hours 53 mins (first marathon when we started working together)
 - 4 hours 29 in Manchester
 - 2 hours 40 Great North run and now 2 hours 7 mins.
- Lost over 2 stone along the way with improved nutrition.

Clive

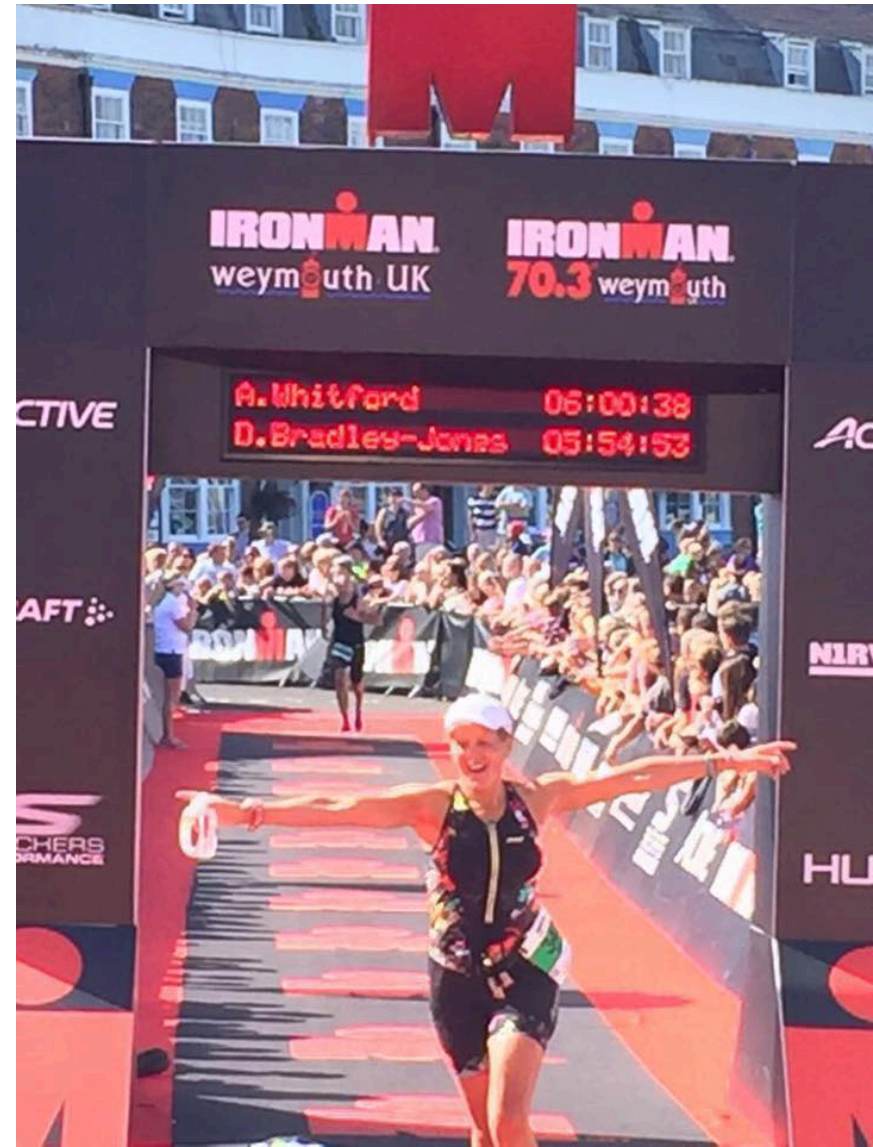


Quit smoking, lost 17lbs, 4 inches from his waist and cycled the Dartmoor Classic.

Nicky- GB representative and World Championships competitor IM70.3



Ali- First ever IM 70.3 in Weymouth September 2016



Semi Pro Rugby → Ironman in 3 years



Matthew Luxton



But....I am like you!

I LOVE MY CYCLING (but swimming and running too)

I LOVE FEELING HEALTHY

I LOVE BEING READY FOR ANY CHALLENGE

I too...like the sugary snacks

There's my
weakness right
there



Outcomes and Objectives

- Gain clarity around the importance of nutrition not only on race day but in and around training.
- Identify areas of your lifestyle that could be affecting your performance.
- Improving immunity in the winter.
- Gain an insight into the sort of strength training you need to do to cycle faster, longer and injury free.

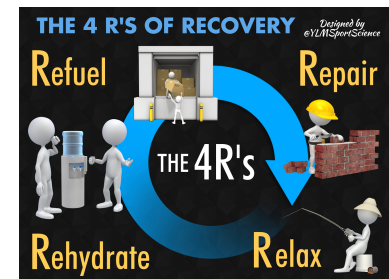


We will be looking at:

- The 5 Pillars Of Human Performance And How We As “Cyclists” Can Apply Them To Each Area Of Our Lifestyle.



- The 4 R's In Recovery Which Most Recreational Athletes Neglect Because Historically “More Is More” In The Endurance World.....This Has Now Changed.



Your Nutrition & Your Energy

- o Myths Around Carbohydrates
- o Recovery Foods For Endurance Athlete
- o How Much Protein Is Enough Or Too Much
- o How To Protect The Immune System



Your Strength – Your Training

- o Why Random Circuit Classes Could Be Damaging Your Speed
- o The One Tool I Would Keep Above Any Other To Stay Injury Free
- o The 5 Steps To Creating A Home Based Strength Session



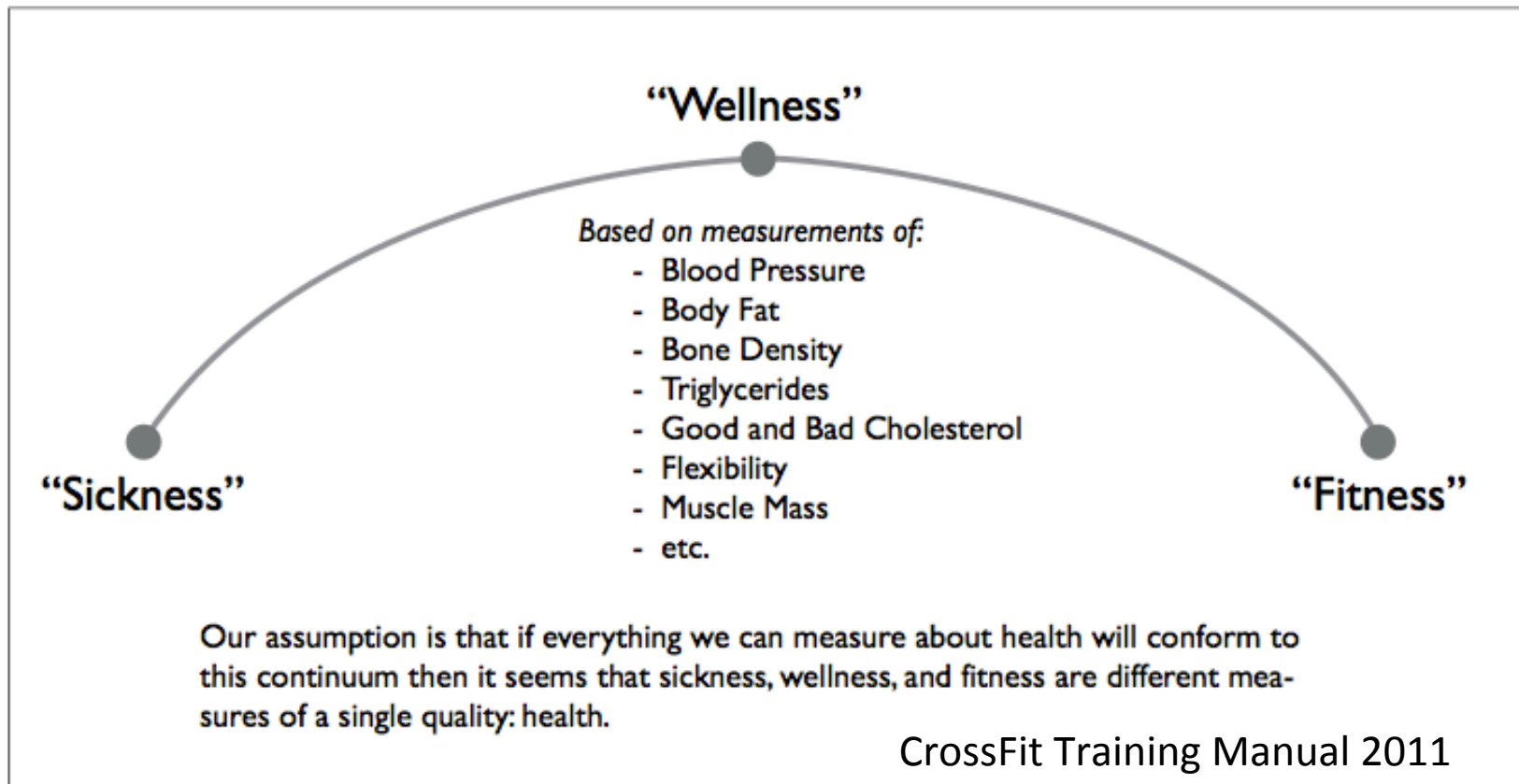
Narrowing The Gap

- My job tonight is to help you all narrow the gap.
- The gap between where you are now and where you want to be.
- 4 most dangerous words – **“I Already Know That”**
- Decision – Action = Stress
- Knowledge + Action = Results

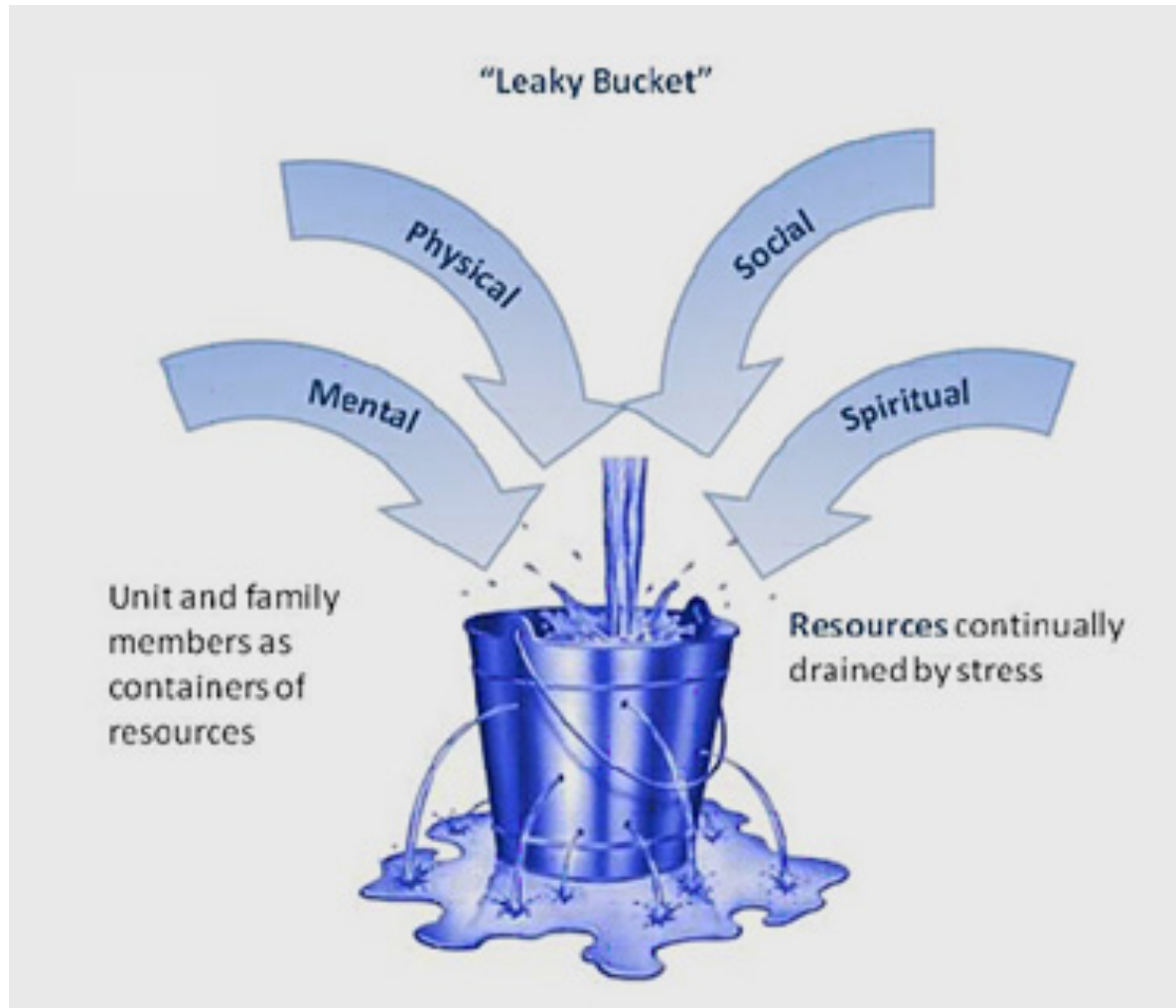


Start with - Health

- Its NOT merely the absence of illness
- Without Health you will never have optimal performance.



The Stress Bucket



KEY MESSAGE:
Minimum Effective Dosage

ASPARINS & SUNBEDS



If you are cycling to lose weight

- Your diet is wrong.....
- You cannot out train a bad diet



Nutrition Is King



3 Simple Steps To Reducing Nutritional Stress

1 . Keep It Simple

2. Clean , whole , naturally sourced (aim for excellence not perfection)

3. If it didn't swim ,grow, run or fly or you cant pronounce it , don't put it in your mouth.

WHEN ITS ALL SAID AND DONE THIS IS THE MOST IMPORTANT THING YOU WILL LEARN TODAY

4 Main Reasons We Get Sick in Endurance Sport

- 1. Toxicity**
- 2. Acidity**
- 3. Deficiency**
- 4. Inflammation**

How To Reduce Chances Of Getting Sick & Missing Training

Our Toxic Diet

- E numbers
- Additives
- Preservatives
- Emulsifiers
- Colourings
- Flavourings
- MSG's
- Alcohol
- Certain Sugars – (HFCS)
- Anti Nutrients- crop sprays
- Atmospheric pollutants- emissions



3 Phases To Reducing Toxicity

1.

Reduce Exposure- eliminate toxic products

2.

Actively seek to remove the chemicals that have accumulated in our bodies. Easily done through water and clean whole natural foods

3.

Support the detoxification pathways and organs that are involved in elimination. Eg Kidneys, lungs , liver , lymphatic system and the skin

What Happens When We Get Toxic?

- Liver can't filter all the toxins
- It leaks the toxins back
- These are then dumped in the fat stores with more fat and water laid down with them to protect the rest of the tissues/organs

There's More Too...

- The liver stops producing SHBG, which mops up excess Estrogen
- Estrogen sensitive tissues now receive an overload of Estrogen hormones this encourages fat storage around these areas
- Specific sites on for men and women

5 of The Roles The Liver Plays

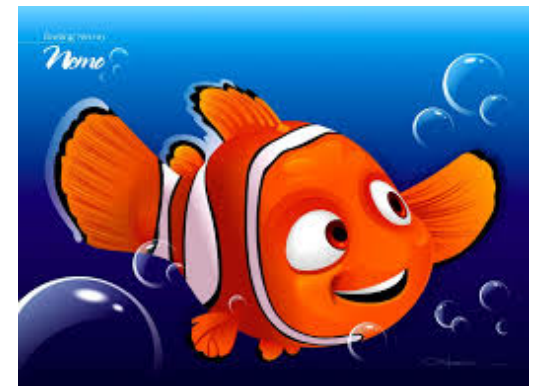
- Cleans the blood of toxins
- Stores Glucose
- Synthesises the non complete/non essential amino acids
- Aids Digestion of fats
- Production of SHBG

Milk Thistle (liquid) and My Grandma



Acidity:

- Illness is inevitable throughout your life and whilst training is a great release from the stresses we might face, it in itself is another stress.
- Those who are healthy tend to recover quicker or suffer less severe symptoms
- Fish are only as healthy as the environment they swim in 😊



Reduce Acidity:

Blood Stress

Sugar- Cortisol – Insulin link

Avoid-

- Artificial sweeteners
- Antibiotics (and most drugs)
- White flour products (including pasta)
- Most boxed cereals
- Cheese

Shoot For-

- Alkaline Foods
- Green veggies
- Drinks (lean greens)

What being more alkaline helps with.....

- Skin more elastic, youthful
- Deeper more restful sleep
- Abundant physical energy
- Suffer from fewer colds, headaches, flu viruses
- Good digestion
- Less arthritis
- Reduction of candida (yeast) overgrowth
- Won't support osteoporosis

Anti Oxidants: VERY Important When Training HARD

How:

By product of training are free radicals that cause damage at a cellular level.

Natural Sources:

berries, cherries, citrus, prunes, and olives. Green and black teas

Anti Oxidants

Oxidation Factors:

- Poor Diet
- Pollution
- Drugs
- Radiation
- Stress
- Injury
- Aging
- Infection

Disease Risks:

- Cancer
- Heart Disease
- Arthritis
- Autoimmune Disease
- ... and over 90 other Diseases

Important Antioxidants:

- Acetyl L Carnitine
- Alpha Lipoic Acid
- Coenzyme Q 10
- Curcumin
- N-Acetyl Cysteine (NAC)
- Resveratrol
- Selenium
- (multi) Vitamin B
- Vitamin C
- Vitamin E
- Zinc

Blood Health

- Vitamin C helps to production of collagen that helps to provide stability of arteries.



- Nitric oxide produced by endothelium to release NO_2 .
- Diffuses through the cell membrane
- Increased blood flow- the strongest natural blood flow
- L-arginine (an amino acid) produces NO_2 and reverses the build up of cholesterol in the arteries.

Reduce Deficiency:

Vitamins & Minerals

Add Supportive Nutrition

- Vitamin C (antioxidant)
- Magnesium (repair/relaxation)
- Zinc (repair)
- + FISH OILS (Omega 3's)
- Greens Drinks (alkalising)

Non Citrus - Natural Sources Of Vitamin C

- Red and Green Chilli Pepper
- Sweet potato
- Thyme/ parsley
- Bell peppers
- Kale
- Watercress
- Broccoli
- Strawberries
- Kiwi's



Natural Sources Of Magnesium/Zinc

MAGNESIUM	ZINC
Pumpkin seeds	Turkey
Spinach *	Spinach *
Soybeans (Edamame beans)	Mushrooms *
Swiss chard *	Beef and lamb
Salmon	Asparagus
Sunflower seeds	Pumpkin seeds
Broccoli	Shrimps
Halibut	Broccoli

Non Fish Sources of Omega 3's

- Flaxseeds / oil
- Eggs
- Chia seeds
- Hemp seeds
- Cauliflower
- Hummus
- Brussel sprouts



Where you can start?

- My 'applied research' shows 19-28 days of clean food and water is enough



What Can I Eat?

Unlimited amounts of

- ✓ Vegetables
- ✓ Meats
- ✓ Fish
- ✓ Eggs
- ✓ Nuts and Seeds
- ✓ Fruits
- ✓ Fibrous foods bind to toxins
In gastrointestinal tract.

More Limited amounts of

- Rice
- Quinoa
- Potatoes
- Gluten free oats
- Beans
- lentils

No Limitations Just Keep It Clean!

So You Are Cleaned Up & Healthy

Now its time to perform



5 Pillars Of Fitness and Performance



Not Just How but WHY

- Many people fall back because of a lack of understanding of how but more importantly WHY.
- Education and empowerment always lead to greater success and implementation of a process.
- The processes are what create the results we get.

Pillar 1 : Consistency

- Cyclists / triathletes (in this case) weave together work, family and challenging workout schedules. I like to lay out the road to the finish line for our clients with a realistic program that allows them to consistently move forwards.
- Training
- Lifestyle (down time, sleep)
- Nutrition

Consistency, not Perfection.

Pillar 2: Balance

- Cycling is a sport in and of itself, there are different varieties such as track, road, mountain biking and cyclo-cross all of which happen with differing distances. We balance our strengths and weaknesses to become athletes who train and race holistically.
- Strength and in particular single leg strength
 - Hip extension and power
 - Posture (undoing the unfortunate riding position)
 - The pedal stroke balance (avoiding stamping on pedals)
 - Core stability (protecting the lower back)
- Cross training to avoid injury

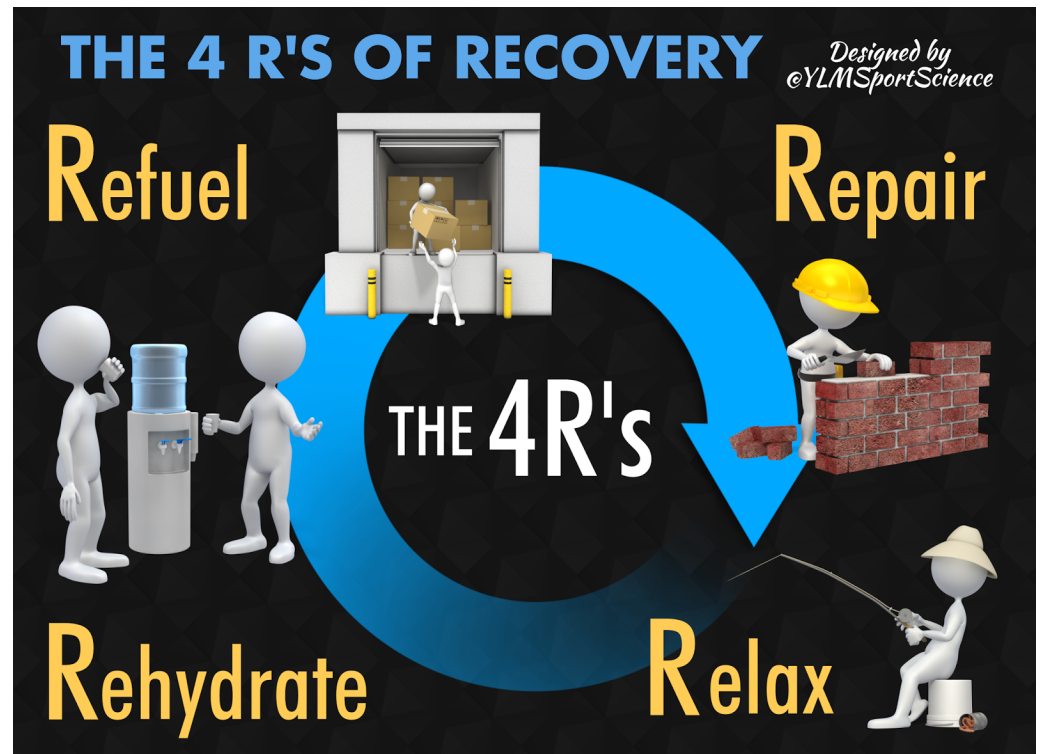
Pillar 3: Endurance

- An athlete's training should reflect the sport and normally any races over 1 hour are ultimately tests of endurance. I like the a simple maxim: If you can sustain, you will succeed.
- Otherwise known as stamina
- Aerobic – within the muscle cell and of the cardiovascular system
- Anaerobic
- Psychological
- Mitochondria

Pillar 4: Recovery

- Successful training incorporates a spectrum of intensity, from full-throttle workouts to rest and recovery. It's the valleys that make the peaks possible and both are essential to real progress.

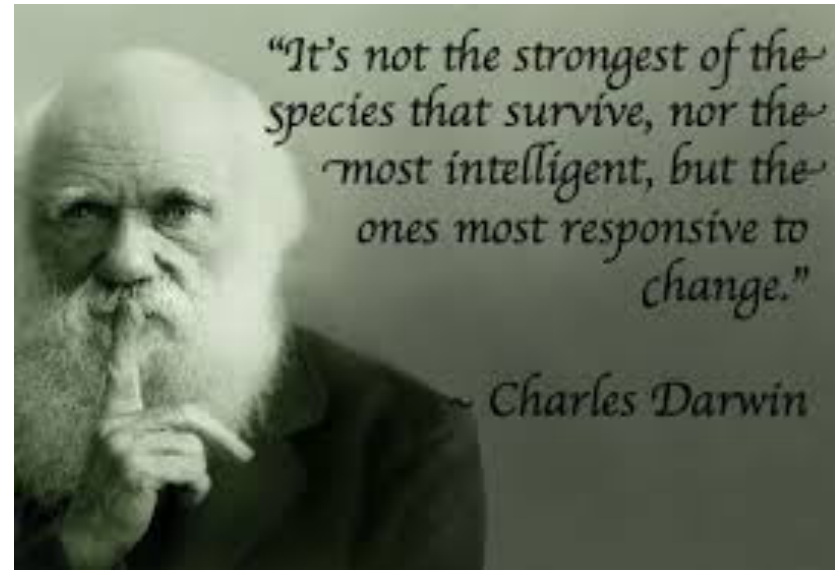
- The 4 R's
- Pre training
- During training
- Post training
- Protein + Carb
- Timing



Pillar 5: Adaptability

- Setting goals is only part of the journey: All of our clients regardless of whether they are cyclists or not have the ability to adjust. We aim to develop an intuitive flexibility – responding and listening to our bodies – to prevent burnout or injury.

- change your plan
- Within a session
- Within a week
- And if necessary Of the overall “A” goal.



- This may even involve a temporary change of sport.

Strength Training For Cyclists

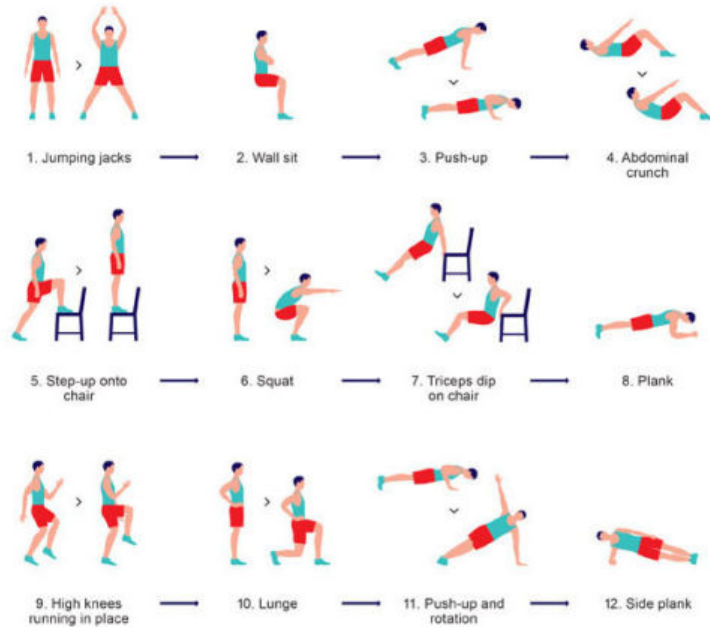
- Why

The Sequence and structure of a session

- Foam roll (release)
- Mobilise
- Activate
- Strengthen
- Foam roll/stretch



The problem is this >>



Anyone can make
someone tired.....not
everyone can make
someone better



Self Myofascial Release and Sports Therapy

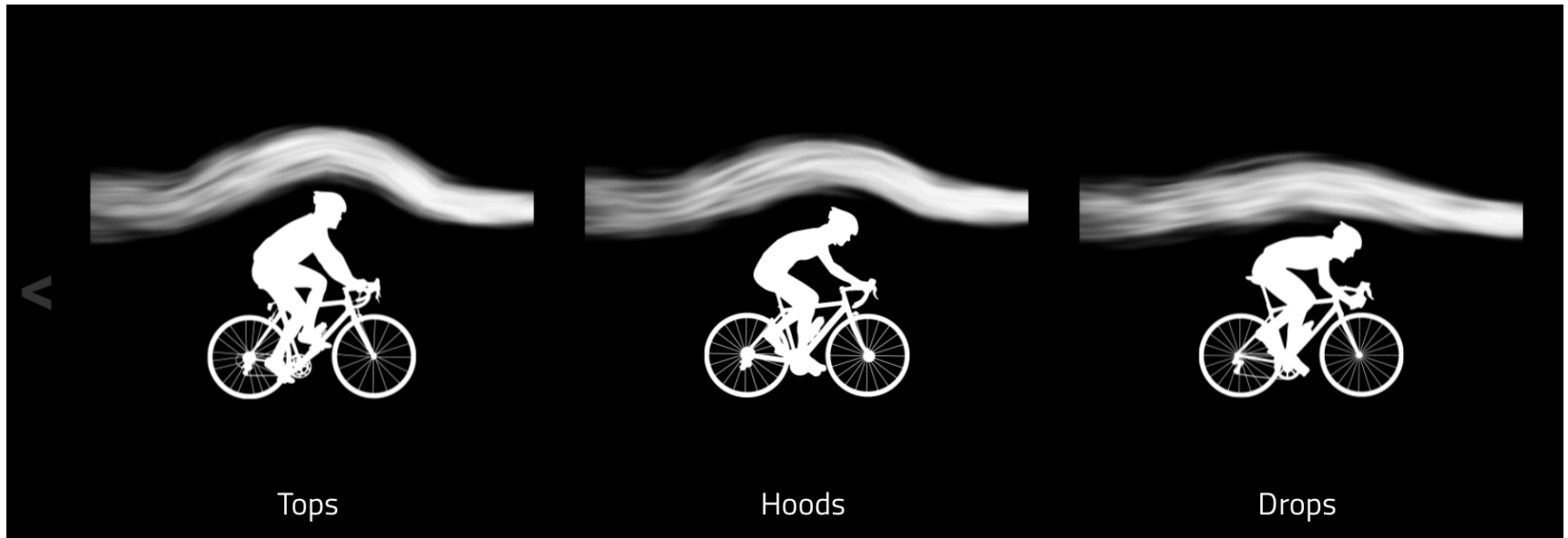
- Foam rolling
- Sticks
- Lacrosse ball
- Launceston Sports and Therapy



Mobility & Flexibility

- Enhances the cyclist's economy. Your ability to move through your pedal stroke without being limited by tissue tension allows for energy conservation.
- Aerodynamic drag makes up 80-90% of the total resistance affecting a cyclist on flat terrain and is a critical factor in the speed achieved at a given level of power output. Therefore being in the correct position is crucial to your economy of effort. (Weight is more important than drag on climbs greater than 5% grade.)
- Flexibility also reduces the risk of cycling injuries. Whilst cycling isn't high impact like running, it is highly repetitive (85-110 times per minute), so it's important that you are flexible enough that your joints align correctly. This flexibility will allow you to distribute the load of cycling which can be particularly high in the joints of the lower back and pelvis.

Mobility makes you more aerodynamic



Strength Training

Includes:

- Stability
- Muscular endurance
- The structure within a “season”.
- Conjugated method (my preferred method for experienced clients) vs linear (inexperienced)



Your Stability Through Strength

- Stability is the ability of the body to maintain postural control and support joints during movement. This is achieved by the coordinating actions of surrounding tissues and the neuromuscular system. This is why multi joint exercises are best in most cases.
- Well-developed stability will allow you to conserve energy and prevent wasteful and excessive movements (which may lead to overuse or strain).
- Core stability is the ability to hold the spine and pelvis in a correct position despite an opposing force.

Muscular Strength Endurance (MSE) & Balance are one

- MSE= Repeated contractions over long periods of time.
- Even if you are using the correct form and cycling on the most ideal surface (no potholes), you will need balance to be successful.
- Factor in fatigue or an unstable surface such as gravel, and your balance becomes even more important.

Power - advanced

- Power is the ability to produce maximal force over a short period of time e.g Sprint, jump
- Cyclists use power constantly. Examples of activities requiring high power include climbing a hill, surges and sprint finishes.
- Power (Watts) / Bodyweight (Kg) = Power to weight ratio
- **Remember:** Power training should be incorporated only after you have a solid strength training foundation. Before attempting advanced power exercises, I like our clients to demonstrate an ability to handle more than their body weight with ease.

Jargon Busting

Basic Terms...well are they?

- An effective strength and conditioning training session will vary depending on your specific needs. However, resistance training should always include concentric, eccentric and isometric muscle actions.
- Concentric muscle actions are shortening. The force generated by the muscle is always less than the muscle's maximum.(e.g.)
- Eccentric muscle actions are lengthening (e.g.)
- Isometric muscle actions are contractions where the muscle is activated and held at a constant length (e.g.)

4 General Principles & why turn up when you fancy it sessions (TUWYFI) are slowing you down

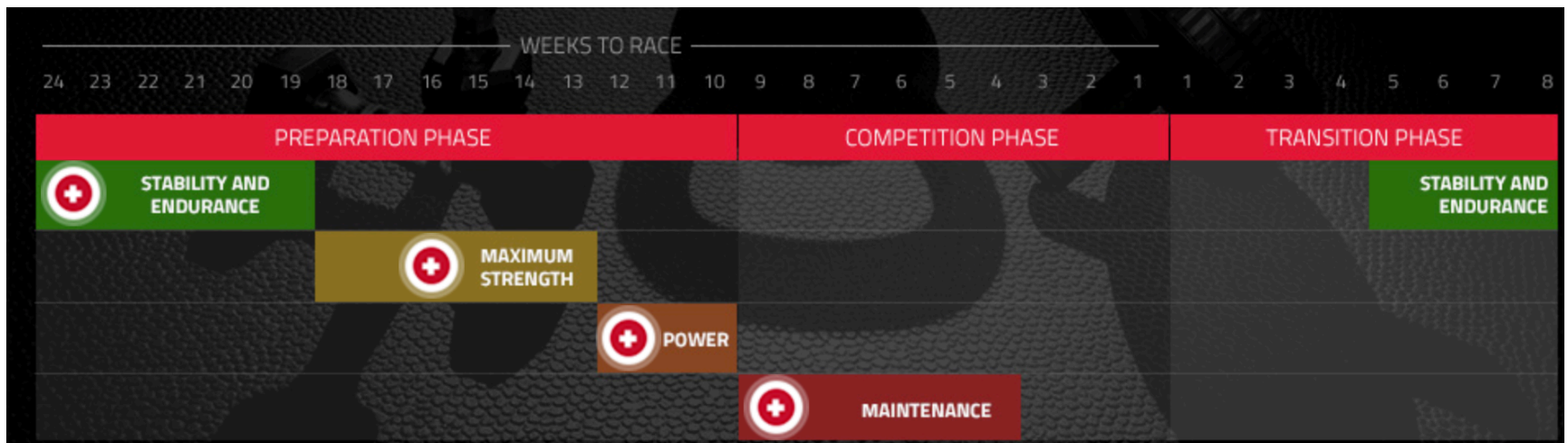
1. Specificity
2. Progressive Overload
3. Reversibility
4. Individualism

(TUWYFI)- They tend to lack all of the above &

- Single Leg (stability- strength- power progression)
- Core (spinal stability)
- Posture (posterior chain mechanics)
 - Breathing

Structure of the season

- This is ok if you have an A race / event , but if you race often it may change slightly.



Strength Training- Summary

- Strength and conditioning training is an essential aspect of cycling and triathlon training.
- It brings balance to a sport and recreation for many in which the training load is dominated by endurance work.
- A strong strength and conditioning program will increase your strength, mobility, flexibility, stability, muscular endurance, balance and power.

Summary continued.....

- As your body adapts, an increased workload stimulates further improvements in conditioning and strength.
- The type of strength and conditioning training session is dependent on where you are in your training status, history and season.
- Exercises should follow a basic structure that flows naturally from each exercise type.
- Your strength and conditioning plan should be flexible in nature and suit the needs, goals and practicalities.

FAQ's & Questions



Potential benefit of fasted cardio

- Improved mitochondrial adaptations
- Done for sessions no longer than 60 mins
- Steady state/drill based work/ lower intensity
- Before breakfast 1 – 2 x per week.
- Keep protein intake up though (>25% of daily intake) as if this is too low it will negatively affect Vo2 Max

Immune System

- There is no one miracle vitamin or mineral but as an endurance athlete we do place extra strain on our immune systems.
- Vit D- muscle contraction/genes/immunity
- Glutamine- WBC/recovery of muscle damage
- Vit C- antioxidant/blood health
- Zinc- hormones and growth/repair
- Mag- muscle relaxant and detoxifier

Vitamin D

- Vitamin D
- UVB vs UVA – use of light strips and light therapy
- Geography – 33 degrees from the equator
 - Winter sunshine
- A hormone not just a vitamin- controls over 800 genes
- Stress fracture prevention
- RDA – really low and actually based on avoiding disease rather than optimising performance.
- 4000-10000 IU