

## What factors determine success in sport?



There is much evidence to suggest that talent is only a small part of sporting success.

### **Bounce – Matthew Syed**

Parents bought a table tennis table aged 8, GB coach was PE teacher, 24-hour access why?

- Opportunity
- Support
- Practice partner
- Coach
- Environment
- Determination
- Role models
- His primary school created 10 GB champions
- There was no magic in the water!!

## What can we control?

Controllable	Uncontrollable
Diet	Opponent
Hydration	Referee/umpire
Training	Coach's decisions
Preparation	Team mates
Mindset	Environment
Fitness	Injury
Communication	Results
Effort	Parents
Body language	Travelling distance
Behaviour	Other people's behaviour
Posture	Weather
Sleep	Crowd

### To be 10% better at sport right now:

- Choose 10 things you are going to do 1% better
- Control the controllables – nothing is left to chance
- Pay attention to the little things

## Workload

### How much do you do?

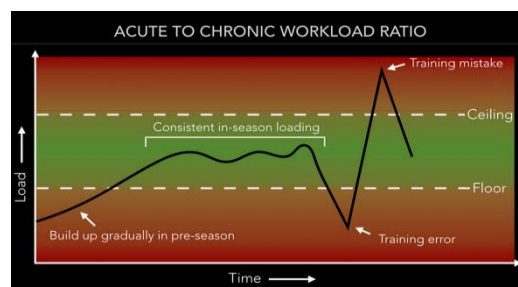
- Very individual
- Depends on your body's maturity
- 50% of energy required during growth
- Sum of all the things you cram in to your week
- If you are exhausted or ill all the time it is too much!!
- Listen to your body

## Performance = Fitness - Fatigue

Athletes accustomed to high training loads have fewer injuries than athletes training at lower workloads.

### Injuries occur with not too much training but...

- Inappropriate training
- Excessive and rapid increases in training loads
- Too little recovery
- Too much too soon – new season
- Spikes in load cause injury



### How to prevent an injury

Work out your volume of sport – record every activity in a week. Make sure you only increase by 10% over the average of the previous 4 weeks. A rise of 15% increases the chance of injury. Care at start of season/bottlenecks – plan and identify on a spreadsheet

### Record the activities and efforts of the week

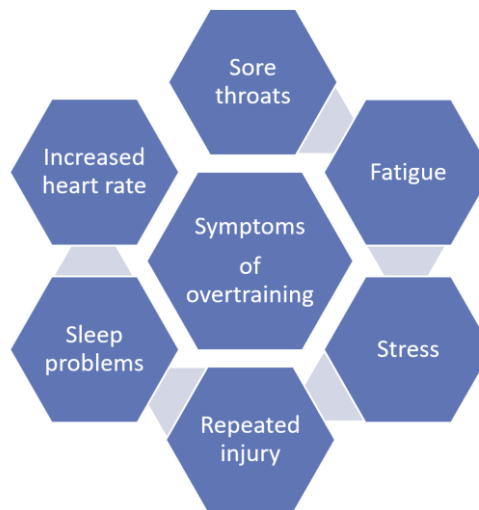
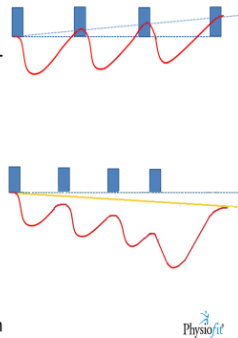
Day/ Date	A.M	P.M	Pain/ injury?	Rate of exertion (0/10)	Tiredness/ fatigue? 1/10	Units of activity	Comments
Mon							
Tue							
Wed							

**No child should experience back pain during or after sport. Failure to rest at the first sign of back pain can result in a bone that is only bruised progressing rapidly to a stress fracture in the lower back and the likelihood of a season missed. Physiofit can help identify whether you are at risk or have developed a stress fracture. Our aim is to eliminate them from junior sport.**

## Overtraining or underperformance syndrome

### What happens when we train

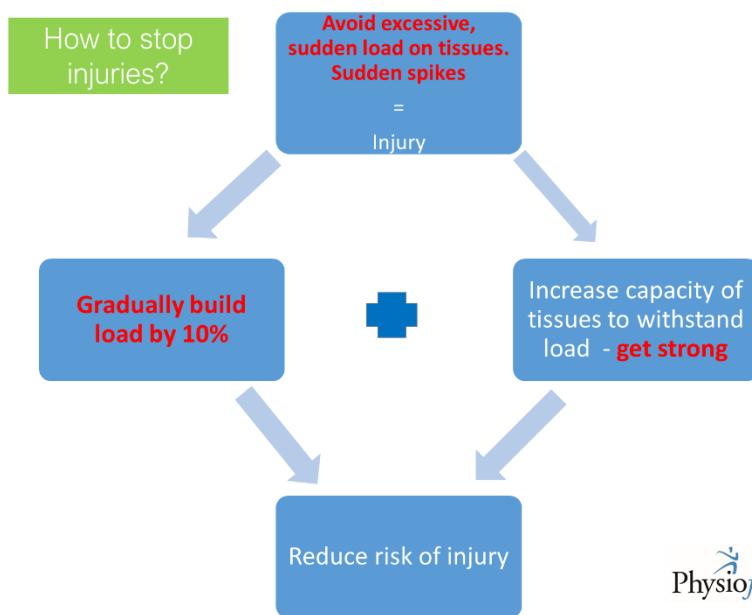
- Training causes **fatigue**
- If adequate recovery occurs the body restores itself to a new higher level of fitness
- If there is inadequate rest and recovery between sessions, performance drops – athlete then tries harder!!
- Known as underperformance or overtraining syndrome
- Greater recovery needed in growth



## Fitness

### How do we get our body working at its best?

- Have a screening with a child specific sports physio
- Highlight your weaknesses and strengths
- Understand your injury risk
- Identify areas where you can improve performance
- Create individual, targeted fitness programmes
- Without this gym programmes lack focus and therefore results



### Move well and get strong

- Practice sports specific posture and movements
- Improve balance – do your teeth on one leg
- Get strong with bodyweight exercises
- Maturity of the body rather than actual age should be used to set training and performance.
- Weights should only be introduced once good technique and movement skills have been learnt.

## Recovery

Recovery should begin immediately after training or playing. Window of 20-30 mins after finish to take on board fluid and protein with carbs to repair and replenish the body. Pay attention to breakfast when important to eat some protein

## Sleep

LED lights used in phones, TV etc are more energy-efficient than old-fashioned lightbulbs but they produce more blue light. Not all light is equal, blue light stimulates sensors in the eye to send signals to the brain's internal clock regarding wakefulness

The brain needs signals from the external environment to adjust itself to daylight and darkness. Brain thinks the blue light is the sun and wakes us up

When it gets dark, a part of the brain secretes the hormone melatonin, which signals to our brain that it is time to go to sleep. Exposure to blue light from phones in the evening confuses the brain causing the brain to stop producing melatonin

Lack of sleep can:

- Make blood sugar levels rise
- Increase cravings for sugary foods
- Increase appetite
- Increase inflammation and pain
- Affect concentration
- Lower immunity
- Affect exam results
- Increase injury risk



High sugary meals before bedtime cause a spike in insulin release which suppresses melatonin and affects sleep quality.

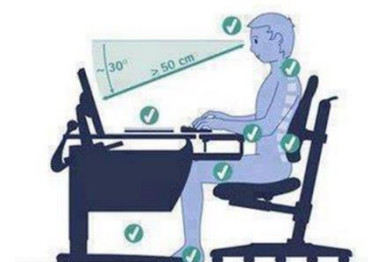
## Sleep hygiene

- Avoid blue light for 2 hours before bed
- Avoid sugar, chocolate, cheese, alcohol, caffeine at night
- Try to stick to same bed times
- Cool air temperature but warm bedding
- Keep bedroom dark – no glow from plugs
- Use power naps in the day
- Use relaxation techniques to fall asleep
- Expose yourself to lots of bright light during the day

## Posture

### Good posture enhances sports performance

- Stronger
- Quicker
- Ability to reproduce correct technique
- Reduced risk of injury
- Increased endurance = less fatigue
- Increased reaction speed
- Better vision



Create height appropriate homework stations where feet touch the ground.  
Use rucksacks on both shoulders

## Mindset

Are the most successful born the best or do they train to be the best?

Nobody regards a baby as dumb when they can't do something – they say it has not learnt **YET**

The body learns fastest when we make a mistake and we try to correct it over and over until we master it

Muscles and brains only develop when trying new things and being PUSHED outside your comfort zone

Praise hard work not talent

Encourage mistakes and celebrate it as part of the journey to success

Successful practice = mistakes + self correction

= myelin development

= muscle memory

### Positive self talk

The steady stream of on-going thoughts or internal dialogue that goes on in our minds

Our inner critic - the negative voice we listen to

Positive self talk creates better performances

Negative thoughts cause muscle weakness

The brain doesn't hear the word "DON'T"

Create NEW habits starting with a positive language

## Nutrition

Fuel in = energy out. Make sure you learn about eating the right foods and drinks to make you perform better. Putting the wrong fuel in a car causes breakdown and engine damage and the same applies to your body. Sugar is addictive and destructive. Limit your intake of artificial sugars. Stay hydrated and make sure you use food and drink to help recovery. After training you have a window to eat or drink protein and carbs to ensure the body has the tool for recovery and repair

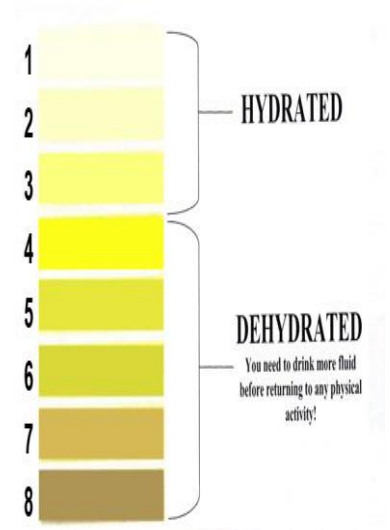
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Focus on:

- Plan the year to peak at the right point
- Highlight potential clashes between sports/school work
- Prioritise training – quality over quantity
- Record volume of sport activity – increase by 10%
- Allow adequate recovery between training sessions
- Make sure you get good quality and quantity of sleep
- Maintain good posture
- Get fit for your sport – strength is key. Body weight and technique before load
- Monitor your training load for drop in performance
- Don't train when ill or injured or exhausted
- Eat for energy and health – reduce your sugar intake
- Keep hydrated
- Keep a positive mindset focusing on having fun

**Success is 99% attitude and 1% aptitude NOT TALENT!!!!**



## **Physiofit's winning recipe – attention to the little things makes big things happen**

Increase sport volume by no more than 10% every week

Avoid blue light at night

Diary in recovery days

Have a screening and identify weaknesses

Learn how to move and lift

Get strong

Good posture on and off the field

Believe in yourself

Eat for energy

**If you require individual help with your child's fitness programme or have concerns re injury prevention, screenings are available on an appointment basis. Please contact [www.physiofit.co.uk](http://www.physiofit.co.uk) or call **01625 590444****

This information is provided by Angela Jackson, Chartered Physiotherapist of Physiofit Ltd. It is a representation of her experience and research, but no liability is taken for the content of this document. It is meant as a guide to best practise and there will be variations for each individual child. For specific advice please do consult a physiotherapist with knowledge of sport and children. This material is not to be copied without the express permission of Physiofit Ltd.

