Nutrition & Lifestyle Basics

If you haven't already read this document on the 9 core elements to nutrition then please feel free to have a read – http://www.mattluxtonhealthandfitness.com/wp-content/uploads/2020/03/FINALISED-BLAST-FITNESS-CAMPS-NUTRITION-KICKSTART-1.pdf

Whilst the above document is written for my clients whom I help with health-related goals, it is not specifically aimed at performance, we all know that top performance is underpinned by health. Whilst the event itself may not be "healthy", the lead up to it needs to be nothing but healthy and relies on you actively seeking out ways to optimise your health status.

In terms of key lifestyle factors around sleep and hydration feel free to use these resources that I have produced for other courses I run that may be of help.

Sleep

Take a listen to the video to learn more…..

😴😴 Matt Walker PhD… the author of Why We Sleep gave this talk on why and how sleep is really important 😴😴✅

Some notes:

✅ 8 hours of sleep….. what the quality of the sleep does to help your performance…..

✅ You need sleep after learning so you can "hit the save button" on the things you have learnt.

✅ Without sleep you cant absorb new memories.

✅ Some "crazy" stats in there on regarding cardiovascular health when it comes to sleep….

✅ At a time also where we all know the immune system is paramount, Matt Walker explains HOW a lack sleep suppresses the immune system which helps us understand more about the sleep and health risk factors.

He gives two great tips-

✅ One around consistency and the other around temperature

Take a listen to the video to learn more…..

https://www.youtube.com/watch?v=5MuIMqhT8DM

Here are some quick facts on how quality sleep helps you be even more awesome:

#1. Restoration

Sleep is restorative, and without it, you are not able to work, learn, create or communicate at your highest level. Over time, lack of sleep can even lead to mental and physical breakdown. Sleep has been linked to the immune system.

Sleep loss can impair our immune function, so by sleeping longer, we can invest in strengthening our immune system. When we sleep, our metabolic rates reduce and free radical production is decreased, allowing restorative processes to take over.

The metabolic phase during sleep is anabolic, as we see a greater release of anabolic hormones such as growth hormone.

This further adds to the restorative processes of sleep.

#2. Memory Processing

Numerous studies have been conducted into the correlation between sleep and memory. Sleep deprivation is linked to a reduction of 'working memory', which keeps information active for further processing and supports higher-level cognition functions such as decision-making, reasoning, and memory.

So, the next time you forget to buy your protein powder, you know why!

#3. Preservation

It's been suggested that sleep can serve as a 'preservation and protection' system to reserve energy and to keep us out of harm's way.

Hydration –

How Much Water Should You Drink Per Day? 💧

The amount of water you need will depend on your age, health, activity level, environment, and diet.

Water leaves the body through several routes - the evaporation of sweat, in the moisture of exhaled breath, in the urine and in the faeces. It is also used to facilitate all the previously mentioned functions in the body.

This amount equals between 1.4-2.8 litres per day.

Adults are advised to consume 1-1.5 ml of water for each calorie expended daily.

For example: if your daily energy expenditure (BMR x activity level) is 2000kcal per day, then you would require 2-3 litres of water per day.

I've personally found that many people do better at the higher end of this spectrum.

In fact, studies conducted on strength and power athletes noted optimal hydration levels for these athletes in the range of 3.8 litres per day for men and 2.6 litres for women.

Water consumption throughout training should be a given, and it is suggested for every pound in bodyweight lost between the start and finish of training, 500ml of water per pound should be replaced.

When recommending daily water intake, these general guidelines work very well:

💧 Get hydrated ASAP in the morning

💧Continue to sip throughout the day

💧During high heat and exercise, drink enough to compensate for lost fluids

💧Listen to your body – it will tell you when it needs more water.

💧Don't wait for thirst cues, that's your body's way of saying it's been too long.

If you are feeling thirsty, that doesn't mean you'll need water soon, it means you've needed it for a while.

You can also check your pee: a pale yellow colour means you're optimally hydrated, and a darker yellow colour means you need some more water. If you have drunk lots of beetroot juice, try not to forget that as that can be scary! (Speaking from experience).

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Electrolytes-

Electrolytes — What Are They? Why Are They Important? 🤓

Water is the fundamental solvent for all biochemical processes in the body.

A solvent is a dissolving medium to which a solute (the substance to be dissolved, like a solid, liquid or gas) is added.

When a solvent dissolves a solute, it is known as solvation. Solutes that solvate into ions are known as electrolytes. These play important roles in our bodies including nerve transmission and muscle contraction.

Electrolytes are single, electrically-charged particles, key to maintaining water balance and the balance of acid-base in the body.

Sodium, potassium, prosperous and chloride are examples of electrolytes – substances dissolved in blood and body fluids that carry electric charges.

The key role of electrolytes is to balance the fluids inside and outside of the cells, so they can function properly, transporting nutrients while removing waste products.

Electrolytes also help create the environment in which the cells' work (for example nerve-nerve communication, heartbeats and contraction of muscles) takes place.

For all of that, there is another reason why remaining hydrated is so important. When we lose fluid from the body, we also lose electrolytes.

Maintaining healthy concentrations of electrolytes is critical to support the important activities of the vital organs.

Keep sippin'!

Take a look at this video I made which can help you understand more around this topic –

https://m.youtube.com/watch?fbclid=IwAR2Kf4fUbBtqO7Yqs5aAzbo4EoS3oZW5E0Td-l4MQHiii3nFKY2f71OmWoM&v=maVTq_KqJzI&feature=youtu.be

Macronutrients and Calories

Please watch this video to help with this.

https://www.youtube.com/watch?v=PNkYP5qWBZY&t=2s

Please take a read of this....

http://www.mattluxtonhealthandfitness.com/wp-content/uploads/2021/07/Quick-Start-Guide-Macronutrients-mlhf.pdf

This will just add another layer of depth to your understanding of nutrition. Helping you make better choices.

Micronutrients

Grab a notepad and pen and take yourself somewhere quiet. There are some golden nuggets in here for you.

https://youtu.be/1GAF-uLhb-U

Protein – More Than Just Muscle Fuel

Please Watch This Video - https://www.youtube.com/watch?v=Phe8vq4fifs&t=64s

Protein is incredibly important.

Without it, our body composition and health suffer.

Proteins are an essential nutrient and can be broken down into 20 building blocks known as 'amino acids'. Out of these 20 amino acids, nine are considered essential, as the body cannot synthesise its own, meaning we must obtain these from animal and plant sources.

The other 11 aminos are non- essential, as they can be synthesised by the body.

Within the 9 essential amino acids, there are three branch chain amino acids (BCAAs): leucine, isoleucine and valine.

They do not require metabolising by the liver and are therefore taken up directly by the body. These three aminos are the most important for the manufacture, maintenance and repair of muscle tissue.

Of the three, leucine has shown to be the most effective amino at stimulating protein synthesis (the process of building muscle protein and therefore growth), yet the three work

better together to provide a host of benefits and even boost energy during workouts.

Studies show that BCAA (Branch Chain Amino Acid) supplementation alone can blunt the catabolic hormone cortisol (think stress) and decrease delayed-onset muscle soreness (DOMS).

Essentially, these amino acids alone will add lean muscle to your body and aid recovery from your daily tasks and workouts.

But there are a ton of other reasons why protein is so important in our daily diets.

Let me give you the whole picture...

I've mentioned that tissue growth and maintenance are primary functions of protein, as they provide the building materials (amino acids) for growth and repair.

That makes them vital for forming skin, nails, hair, bones, organs, tendons and of course muscles.

But protein also plays a regulatory role in the body, managing enzymes, hormones, antibodies, fluid balance and nutrient transportation.

Lastly, if the body really needs to, it can use protein to provide the calories it needs to meet the body's energy needs.

It's clear that protein has a ton of important functions outside of just making your muscles look good.

You're laying the foundations to incredible results.

Keep up the great work!

Fats

Choose A Better Fat Option

A little video for you to watch

Fats- https://youtu.be/GKpmZ4zlYVY

The Truth About Fats 🥥

Let's start with some interesting benefits we see from including fat in our diet:

Fat is an energy source

Fat can keep you fuller for longer
Fat is a key player in managing inflammation
Fat can improve your hormonal profile
Fat is high in certain vitamins and minerals

When looking at the metabolic processes and their ability to supply energy, it is very clear that fat is an essential component of anyone's diet.

The drive to demonise fats started in the 1980s when Government guidelines and media messages told us that foods containing fat make us overweight and increase the risk of cardiovascular diseases.

This was wrong. Oh so very wrong.

What wasn't made clear was that food choices and overall intake were the key factors.

To understand fat, we need to know about the 'right' kinds of fat, and how much to eat.

Get this right, and you'll discover the incredible benefits that healthy fats have to offer, including better energy, increased nutrients, improved fat loss and enhanced flavour to your meals.

But before you go off and start smothering all your meals with extra cheese and a side of peanut butter, let me give you a word of warning...

With fats, moderation is key, as a little goes a long way.

Fat is the most concentrated source of energy, and 1 gram of fat provides around 9 calories (compared to 4 calories per gram for protein and carbohydrates).

That's why understanding portion size is so important, as calories from fats (even "healthy fats") can quickly add up!

There are three major types of fat: saturated, monounsaturated and polyunsaturated. The difference lies in the structure of the fatty acids they are made of.

Examples of foods containing a high proportion of saturated fat include animal fat products such as cream, cheese, butter, ghee, and fatty meats.
Certain vegetable products have high saturated fat content, such as coconut oil, palm oil and even cocoa. Many prepared foods are high in saturated fat content, such as pizza, processed dairy, bacon and sausages.

Yep - most of the tasty stuff!

Poor old saturated fat has been at the forefront of the attack on fat, with the World Health Organization and National Health Service all advising that we avoid this type of fat.

However, if we actually look at recent research, we'll find nothing to support fears that saturated fat contributes to cardiovascular diseases or increased obesity risk.

It appears it's not so bad after all.

Next, we have a family of unsaturated fats (polyunsaturated and monounsaturated), typically known as 'less stable' than saturated fats, due to their chemical structure.

That doesn't mean they are more likely to harm you, but it does mean they shouldn't be used for cooking at high temperatures.

Always use saturated fats for cooking.
There are two types of polyunsaturated fatty acids, linolenic acid (omega 3 fatty acid) and linoleic acid (omega 6 fatty acid) in foods. We call these essential fatty acids because they must be obtained from our diets.

There's also a lot of research to support the health benefits of a balanced omega 3 to 6 fat ratio, and you'll often see people use omega supplements.

Omega fatty acids are rich in foods such as walnuts, sunflower seeds, sesame seeds and natural oils like flaxseed and linseed.

Last but by no means least is monounsaturated fat.

This has a higher melting point than polyunsaturated fat and a lower melting point than saturated fat. It is liquid at room temperature and semi-solid or solid when cold. Monounsaturated fats are found in natural foods such as red meat, whole milk products, nuts and high-fat fruits such as olives and avocados.

Olive oil is about 75% monounsaturated fat.

It's also important to mention that fat products should come from high-quality sources.

Ideally, buy meats classified as 'organic/grass-fed/wild', and oils labelled 'extra virgin'.

Potentially harmful toxins can be stored in the bodyfat of animals fed a poor diet or kept in less than ideal environments.

As the saying goes, you are what you eat! We are also more what the foods we eat ate! (tongue twister).

Building The Perfect Meals –

This document should help you.

http://www.mattluxtonhealthandfitness.com/wp-content/uploads/2021/07/4-Step-Guide-How-to-build-the-perfect-mealmlhf.pdf

Nutrition Around Training

Pre Training – Your normal meals are normally great here, but avoid meats in the few hours before training to make sure you don't take up valuable blood distribution to digestion rather than the muscles.

Aim for a meal that contains 8-10g/kg of bodyweight of easily absorbed carbs (cooked oats, mashed potato, banana etc) in the 2 hours before if your session is over 1 hour long.

During - If on longer (bike) sessions we should be aiming to fuel with between 60-120g of Carbohydrate per hour depending on body size and individual factors. This would normally start from around 40 minutes on wards and I would advise a combination of fluids, semi solids and solids every 20 minutes to gradually feed this need. Ideally you are consuming 650-1000ml per hour of fluid, depending on temperature, humidity etc. This is of course as you will know is not solely water.

Post Training – 4 key areas really to address

1. ***Refuel and Re-load*** – 3-4 main meals per day, regular carbohydrate snacks spread out across the day (6-10g/kg of body mass)
2. ***Repair & Adaptation*** – Meals as discussed above 3-4 main ones with ideally 20-25g of protein in each one alongside your carbohydrates ideally every 3 hours to fully maximise protein synthesis rates.
3. ***Rehydration***- 1Kg of weight lost = 1.5 l of fluid required (aim to replace lost volume within 2-4 hours post exercise over a regular time period). Sports drinks containing electrolytes and carbs are a starting point. Milk based drinks (chocolate milk), fruit juices, try to have water with electrolytes but not water alone here as we need to rehydrate, not flush the cells out here!
4. ***Reduce Inflammation***- Antioxidants and anti-inflammatory foods or supplements can modulate the inflammatory reaction, which may be beneficial in the acute recovery phase. Foods like blueberries, prunes, raspberries, sweet cherries, broccoli, sprouts can aid this. Oily fish, beans, flax and walnuts also help.

Smoothies –

A useful tool for getting nutrients into the body. I like these particularly post training as they offer a low fibre, easily digested source of nutrients.

This video is useful in making sure our smoothies provide us with what we want.

https://vimeo.com/511205707

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