

Eating and Training

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Eating healthy, does it affect your training performance?

Your food choices each day effect your health — how you feel today, tomorrow, and in the future. I believe good nutrition is an essential part of a healthy lifestyle. There are many benefits of a well-balanced diet that can help in an everyday situation, such as increased energy and more focus, which gives you the necessary nutrients that your body needs to create new cells, clean toxins and to just function every day. It keeps you strong and healthy and helps prevent diet-related illness.

Although, most of us know what the health benefits are from eating healthy, my questions;

- Does eating healthy affect your training performance?
- Does it increase your mental focus, ability to push yourself faster/stronger, jump higher or sprint for longer?

There is a lot of resources available now days that provides you adequate information on what type of diet would suit your individual body type and how to keep yourself healthy, avoid diseases and live a good life. There are a lot of specific diets suited for people with certain medical conditions, i.e. if you are a diabetic you may need to avoid certain foods or if you are Celiac, which causes an immune reaction to eating gluten, a protein found in wheat, barley and rye. The food we eat has a large bearing on our body and hence, it is good to know what suits you and your body type.

Without researching or asking the right professionals, people will often seek help and advice on the internet for well-known diets such as

- The **Atkins Diet**, which focuses on controlling the levels of insulin in the body through a low-carbohydrate diet.
- The ever-popular **Weight Watchers diet**, an International company that offers various products and services to assist in weight loss and maintenance.
- The **Paleo Diet** this typically includes lean protein, fresh fruit, vegetables, nuts and seeds – foods that in the past could be only obtained by hunting and gathering.
- The **low-fat diet** is one that restricts fat, saturated fat and cholesterol which in time helps cut your intake of calories.

However most of these diets cut out entire food groups which leaves you feeling hungry, sluggish and grumpy. When your body isn't getting the nutrients or pleasure it needs from food, you're more likely to overindulge. Feeling satisfied isn't just about portion size, it's also about taste and plenty of variety. You can eat carbohydrates and fat, as your body needs a healthy mix of protein, fat and fibre at every meal and snacks for energy.

I often describe healthy eating to people as a car, your car needs fuel, oil and water, all essential ingredients for it to run correctly. If your car doesn't have adequate fuel, running the car with a nearly empty gas tank will wear out the fuel pump faster. The fuel acts as a heatsink for the pump, which cools your car down. If you run out of engine oil, your engine will seize almost instantly and if your car is lacking in water this will cause the engine and the entire transmission to overheat, just like our body every macronutrient plays an important part.

- Carbohydrates (fuel) they break down into simple sugars which are then absorbed into your bloodstream providing your main source of energy.
- Protein (oil) is essential for the maintenance and building of body tissues and muscle.
- Good fats (water) are important for optimum nerve, brain and heart function.

So, we know about diets and healthy eating, but does eating healthy affect your training performance? How would I be able to justify this, get facts be it true or false?

My Plan

To find out I decided to test four different people with differing fitness levels and eating habits. To do this I created a six-week test where the subject would complete a fitness test once per week with the first three weeks eating as they normally would and the second three weeks following a meal plan tailored to suit them. The goal was to observe if there were any differences in their athletic ability when eating healthy, to gauge this I also measured the time it took to complete the fitness test each week, the weight of the person as well as waist measurements.

Meet my candidates:

Candidate 1. Cameron, had been a personal trainer for 5 plus years, always competed in school sports, so grew up with the competitive nature. He was a competitive swimmer, regularly competed in body building shows and recently found a love for surfing. Cameron had a good knowledge of what to eat to achieve the best possible results, but often found himself cheating and eating takeaways due to the hours he worked, preparing food just wasn't a priority.

Occupation:	Fitness professional, personal trainer
Current sporting activities:	Athlete and surfer
Current activity level:	5+ days moderate exercise
Frame:	Medium build
Start weight:	89.9 kgs
Start waist measurement:	96 cm
Personal goal:	To lose weight, whilst increasing fitness

Candidate 2. Erik, a typical New Zealand bloke that knew best when it came to food and diet, eating only when he was hungry, having a coffee and biscuit for breakfast, indulging on peanut butter sandwiches for morning tea, toasted sandwiches for lunch and often wondered why he was hungry in the afternoon. An avid hunter, duck shooter, diver and you would often find him lifting weights in the gym. However, his daily job was mostly sedentary, working within an office inputting data and placing orders with overseas distributors.

Occupation:	Procurement Manager
Current sporting activities:	Hunting and diving
Current activity level:	4 days light to moderate exercise
Frame:	Muscular build
Start weight:	96.3 kg
Start waist measurement:	97 cm
Personal goal:	To maintain current weight, whilst increasing fitness

Candidate 3. Jess, always strived to keep her weight down, always in the gym, running, walking and keeping up with the latest diet fads, however when it came to losing weight and keeping the weight off she struggled. Jess always found herself hungry, so she would binge eat to fuel her system back up again. Her daily job required her to be on her feet a lot, so was active during working hours.

Occupation: Waitress
Current sporting activities: Walking/gym
Current activity level: 2-3 days light exercise
Frame: Solid build
Start weight: 80.1kg
Start waist measurement: 106.5cm
Personal goal: To lose weight, whilst increasing fitness

Candidate 4. David had recently competed in a body building show and did reasonably well for his first time, during this period spent a lot of time in the gym, ensuring his daily food intake was exactly what his nutritionist had planned and pretty much doing everything he personally could do to maintain a healthy lifestyle. David understood what his body needed to keep it healthy. However, after competing he had no goal as such to work towards and become increasingly less motivated to stay fit and healthy. During the day he is a store manager, which requires a lot of sedentary work.

Occupation: Store Manager
Current sporting activities: None
Current activity level: None
Frame: Medium/Solid build
Start weight: 101.6 kg
Start waist measurement: 107 cm
Personal goal: To lose weight, whilst increasing fitness

The Process

The first 3 weeks of the study they could consume their normal day to day diet, eating whatever they wanted as they had been doing. During this period, I had asked them to keep a record of all food and drink consumed and observed their dietary intake whilst noting what foods they liked and their daily eating habits. Whether it was eating only when they were hungry, binge eating at night, sugar cravings or not consuming enough water.

- To analyse: As above I had asked my candidates to keep a food diary and to record **everything that went in their mouth, no matter how small, and whether it was a typical mealtime or not.** More specific the better and to include all the following:
 - ✓ Time of day
 - ✓ Type of food and/or drink
 - ✓ The amount/serve they ate
 - ✓ How they were feeling at the time
 - ✓ Any physical activity (planned or spontaneous) they did during the day

An example of a food diary:

Erik – a typical Monday (busiest day at work)

Time of Day	Type of food/Drink	Amount/Serve	Mood	Physical Activity
6.00am	Tim Tam	X2	Tired	
	Coffee	100mls Milk and 2 sugars	Tired	
10.30am	Tomatoes Sandwiches	X4 pieces of white bread with best foods mayo, x1 tomato	Hungry	
1.00pm	Peanut Butter sandwiches	X4 pieces of white bread with margarine 3-4 tsps. of peanut butter	Hungry/tired	
3.30pm	Banana	X1	Tired	
	Coffee	100mls Milk and 2 sugars	Tired	
5.00pm				Gym
7.30pm	Steak, potatoes and mixed vegetables	200grams steak, 3 potatoes and x1 cup of mixed vegetables	Hungry	
9.30pm	Gingernut biscuits	X2	Hungry	
	Cup of tea	100mls milk	Hungry	

The idea behind this was to open their eyes to see what they were eating, how much, and any patterns that may explain why they ate the way they did, such as a busy schedule, stress at work or feelings of loneliness or boredom.

I found most of my candidates were skipping breakfast, grabbing unhealthy lunches as it was easier and quicker, fast snacks like McDonalds, lollies and chips or gorging themselves in the evening as this was when they were at their hungriest.

- To observe: through regular observation, I hoped to recognize which foods made my candidates feel full and satisfied. If, for instance, more bread made them feel heavy and sleepy, I would encourage them to eat less of it. On the other hand, if I noticed they were hungry for more, I could include an extra serving of protein which would leave them feeling more satisfied and well balanced.
- To correct: after seeing personalised food records, I was able to look at the information provided to see where I could make changes. I.e. if they were always eating sugar at night, they may need more calories or protein during the day. Or too many high-calorie snacks between meals, too much carbohydrates, not enough fruits and vegetables, not enough protein, or simply the fact that they weren't drinking nearly enough water.

So, to get the ball rolling I adapted my knowledge from past experiences and created individual meal plans for each of my candidates based on their weight, age, height and daily activity level. Once week 4 approached they started their personalised diet.

For some of them it seemed like a lot of food in comparison to what they were eating in the first 3 weeks, however this was good food, food especially tailored to suit them and their body type.

For example, for Erik who wanted to maintain his current weight, but increase his physical ability I kept him on "Maintenance Calories" the total amount of calories required daily to maintain his body weight with no gains or losses in fat and/or muscle tissue.

Another example Cameron who wanted to lose weight and get fitter, but his job was demanding and needed quick and easy to prepare meals but ones that also kept him fuller for longer, I included a lot

of slow releasing carbohydrates (that are absorbed slowly and kept his blood sugar at bay, keeping hunger pains away) and protein.

In general, I choose whole foods that were as close to their natural state as possible, foods that had not been processed and were rich in vitamins and minerals. Lean cuts of protein so it took longer to empty from their stomachs resulting in my candidates feeling fuller for longer. Healthy unsaturated fats to boost brain health and to keep the immune system strong and wholegrains to keep energy consistent throughout the day.

Candidates were encouraged to eat more often, rather than starving for long periods of time between meals because they thought it was going to help them lose weight faster. In truth after long periods of time without eating your blood sugar plummets which makes you irritable and less productive and more likely to sabotage your diet by grabbing the wrong foods. It's better to have a small meal or snack every three to four hours.

An example of a meal plan:

David 2045 calories

Breakfast:

- Yoplait vanilla light yoghurt (50g)
- Homebrand rolled oats (70g)
- Chelsea maple flavoured syrup (10g)
- 1 medium banana

Lunch:

- Ploughman's harvest rye (4 slices)
- Hutton's 95% fat free ham & chicken luncheon (100g)
- Anchor lite cottage cheese (50g)
- Lettuce (30g)
- Cucumber with peel (30g)

Dinner:

- Chicken (raw weight 150g)
- Chefs world udon noodles (200g)
- McCain winter vegetables (120g)
- Wattie's bit on the side satay sauce (25g)

Snacks:

- Hard boiled eggs (x2)
- Healtharries rice wheels – burger flavour (18g)
- Muscle pharm Cookies n cream protein (2 scoops)

To help me gauge whether eating healthy increased candidate's physical performance I also built a fitness test that would work the entire body and was not only challenging but included a range of motions that each person could better themselves at, as they became fitter.

The fitness test comprised of:

- **200mtr sprint**, a test of speed and endurance that required an all-out sprint for the duration. It's also a balance between power and finesse, so it demanded plenty of ability, and technique.
- **20 air squats**, also called a body weight squat, is an effective exercise for both the beginner and the advanced athlete. It uses just your body weight to tone and strengthen the muscles of your buttocks, thigh muscles, hamstrings and quadriceps.

- **20 full press-ups**, the press-up is probably the most popular bodyweight move in the world. That's partly because it can be performed anywhere, without the need for much space, but above all it's effective, works your chest, core, triceps and shoulders.
- **20 hand-release burpees with jump/clap at top**, a true full-body exercise, working most major muscle groups while also improving your cardiovascular fitness and testing your balance and co-ordination.

I expected (well at least hoped) the candidates would complete their fitness test as fast as possible, ideally with minimal rest in-between each exercise. I was then able to monitor and measure their physical performance more accurately before they started their diet and during the study, once their diet was introduced. To take it a step further and to gauge if they were keeping on track of their diet, which hopefully included no cheating I also weighed them and measured their waists weekly before they completed their fitness tests.

The Progress

Fitness Test Week 1

Complaining about their poor state of health, dreading the thought of this test and felt like it was like another chore like vacuuming or mowing the lawns. The workout couldn't end soon enough for them. **Each of my candidates completed their fitness tests, with their times ranging from 3.02m to 8.28m with a combined time of 21.33m.**

Fitness Test Week 2

I had various excuses today for them not to complete their test, "I'm too busy", "too tired", "too lazy", "I had a hard day at work", you name it they had an excuse for everything. I also found some didn't give 100% effort because the fear of "not making it" was holding them back. **Times ranged from 2.51m to 8.15m with a combined time of 20.34m.**

Fitness Test Week 3

Some wanted to quit as their progress was hindered, I didn't lose any weight this week? My time didn't decrease, what's the point? Many told themselves they couldn't do it, or it was truly impossible to get a faster time result. **Times ranged from 2.43m to 6.02 with a combined time of 18.06m.**

Diet Introduced – Fitness Test Week 4

My candidates were excited to hit their fitness test to see if their times were faster, seeking ways to improve upon themselves. Each person had increased motivation, concentration and focus after improving their diets. **Times ranged from 2.27m to 5.47m with a combined time of 16.43m, that's an overall faster time of 5.03m from week 1.**

Fitness Test Week 5

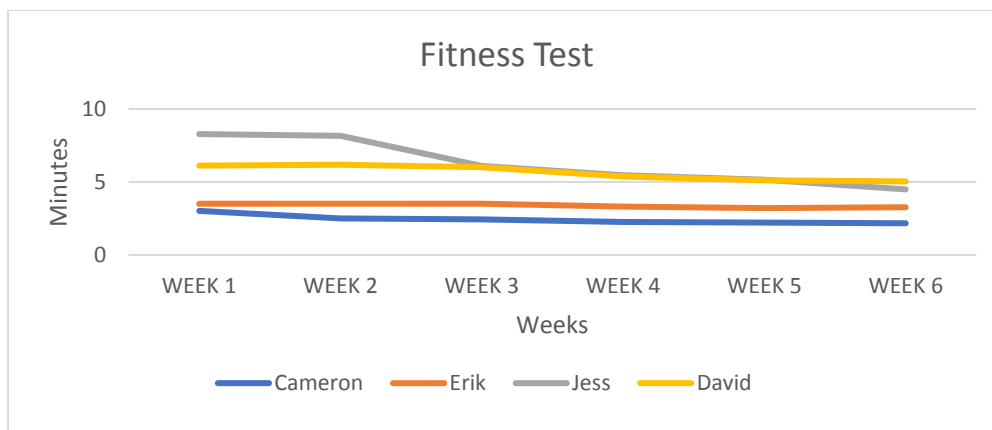
My candidates gave it 110% today and didn't shy away from a bit of hard work. Their determination and drive to get it done was far superior than any other week. With increased energy levels, more positive attitudes, more stable moods, having had better sleep, decreased joint pain and a greater ability to focus their thoughts after switching to a healthier eating pattern. Their overall performance was escalating. **Times ranged from 2.21m to 5.15 with a combined time of 16.08m.**

Fitness Test Week 6

My candidates where feeling blessed to have found new strength and increased health, they were also competing against themselves and only themselves to get better each week. They were making the necessary decisions and then taking the action to get it done. **This week times ranged from 2.17m to 5.15 with a combined time of 15.36m.**

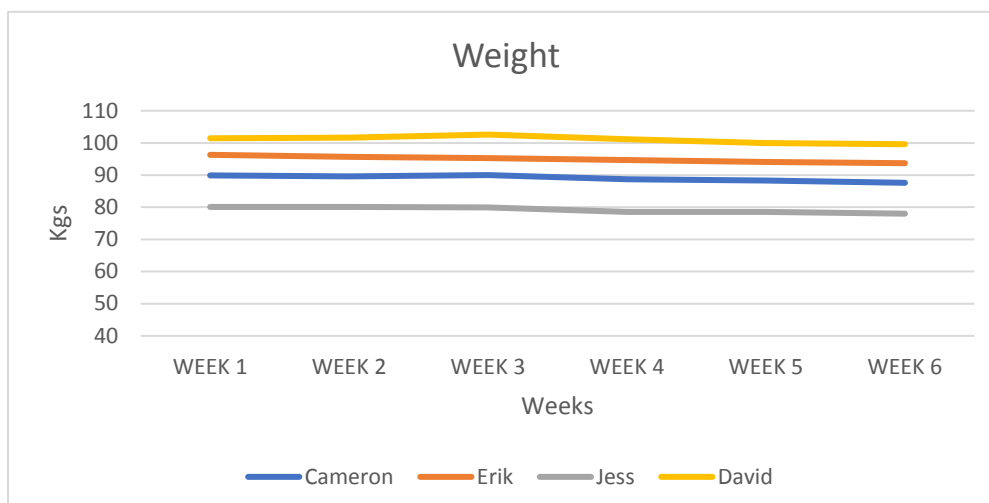
The Results – Fitness Test

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
Cameron	3.02m	2.51m	2.43m	2.27m	2.21m	2.17m
Erik	3.51m	3.50m	3.51m	3.32m	3.21m	3.26m
Jess	8.28m	8.15m	6.10m	5.47m	5.15m	4.49m
David	6.12m	6.18m	6.02m	5.37m	5.11m	5.04m



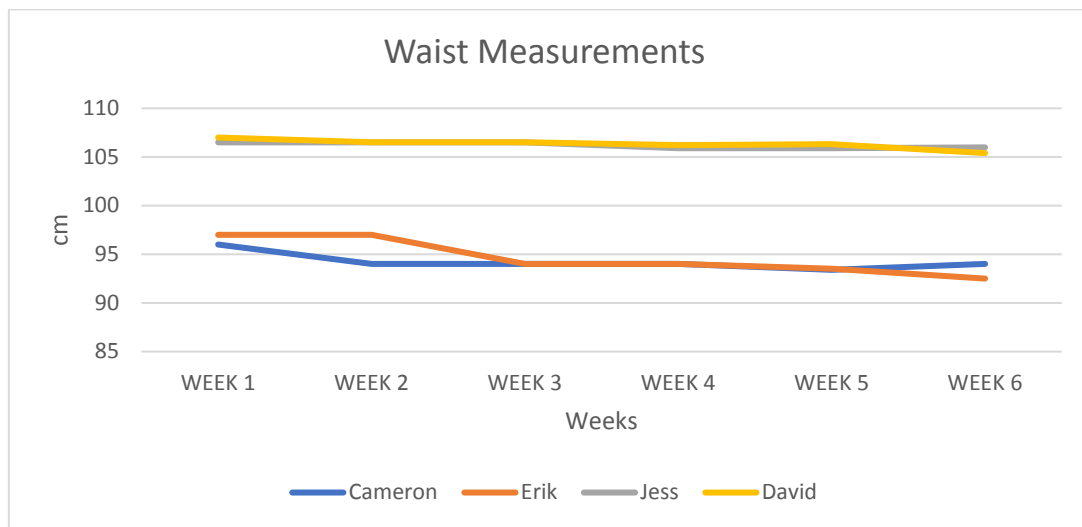
The Results – Weight

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
Cameron	89.9kg	89.6kg	90.0kg	88.7kg	88.3kg	87.6kg
Erik	96.3kg	95.7kg	95.3kg	94.7kg	94.1kg	93.7kg
Jess	80.1kg	80.1kg	79.9kg	78.6kg	78.6kg	78.0kg
David	101.4kg	101.6kg	102.6kg	101.2kg	100kg	99.6kg



The Results – Waist Measurements

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
Cameron	96.0cm	94.0cm	94.0cm	94.0cm	93.4cm	94.0cm
Erik	97.0cm	97.0cm	94.0cm	94.0cm	93.5cm	92.5cm
Jess	106.5cm	106.5cm	106.5cm	105.9cm	105.9cm	106.0cm
David	107.0cm	106.5cm	106.5cm	106.2cm	106.3cm	105.4cm



Summary

For all candidates they started off slow and steady, taking each week as it came, some struggling to get through the fitness test without needing a break. However, once the diet was introduced all had significant weekly improvements, more enthusiasm and motivation for the fitness test. With determination and perseverance, they were all able to see weekly improvements within their performance and each felt great physically and mentally after the study

However I feel if a person doesn't have a committed training or eating plan or a dedicated event they are training for, people often stray as their focus tends to be weak, however if there is a goal in mind or they have regular weigh-ins/body composition checks people will be more determined to undertake what is needed to make their gains or loose the weight, for example Jess, she done amazing throughout the 6 week fitness and eating plan test, as I was on her case daily/weekly asking her how it was all going with additions of the weekly weigh-ins and fitness test, however once the 6 weeks had concluded her eating and training went straight back to her yo-yo mentality i.e., doing what was current or the latest trend in regards to eating and training.

On the other hand, if you have a strong mind, one that is self-motivated not needing others for encouragement and support you will continue to engage with healthy eating and regular training as when the body feels pleasure it will release an Endorphin rush. They encourage us to go after that good thing to feel the associated pleasure. One of my candidates followed through with their healthy eating plan, as it made them feel good, loved seeing weekly results and received that endorphin rush to continue.

Conclusion

Eating healthy is not always easy, it takes a lot of small steady steps to stay committed, however once you're on the right path to a healthy lifestyle it can be one of the smartest decisions you will ever make. So, does eating healthy affect your training performance? Yes, I believe it does, as shown on my test results, during the first 3 weeks my candidates were sluggish, constantly complaining and felt as though this whole process was a chore. A well-balanced diet caused more emotional stability which had a positive impact on the candidate's physical performance.

However, once the meal plan was introduced each of my candidates were determined to give 110% effort, and they were always seeking ways to improve on oneself. Does it increase your mental focus, ability to push yourself faster/stronger, jump higher or sprint for longer? Not only can eating well make you look and feel better it can also help with your mental ability, it increases productivity, their focus increased immensely, they weren't so tired, the complaining almost stopped and I had 4 much more happier candidates.