

*Leading Self & Others  
Motivation & Leadership*

*Stress management for increased productivity  
through nutrition and exercise. Eliciting your  
values/motivators for Health & Fitness*

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**CAMBRIDGE  
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## **Stress management for increased productivity through nutrition and exercise.**

Our bodies are geared up to be highly responsive to both internal and external stimuli. The endocrine system within the human body will react to demanding and negative situations by releasing hormones to prepare for fight, flight or freeze. This release of hormones starts a cascade of effects including dilated pupils, increasing heart rate, constricting blood vessels and a slowing down of unnecessary bodily functions. In an isolated event where there is a real danger these processes can be life saving but when the perceived threat becomes chronic the constant release of stress hormone (cortisol) can have some damaging and long lasting effects. Extended periods of elevated cortisol levels can cause age-related conditions like heart disease, high blood pressure, obesity and osteoporosis.

It's not all bad news though when it comes to these extremely useful hormones. Given a healthy balance of exercise and good nutrition small doses of stress can help to clear the mind and optimise performance levels. Our goal should be to create the best possible version of ourselves so that when life throws a curved ball we're primed and ready to respond.

The environment around us, our lifestyle choices and our commitments to others all play a role in setting the level of alert our bodies operate. At which ideally we'd all live a low to no stress lifestyle where we feel comfortable and confident in our surroundings and duties but the realities of modern life often mean multifarious responsibilities and only limited control.

### **What causes us stress?**

Stress has become the term used to describe a state of mental or emotional strain resulting from negative circumstances. The same stressor will affect individuals in different ways and to different extremes. There has been a lot of sociological and psychological research into the various characteristics of stress and methods used to counter it.

A few interesting excerpts from a paper on stress and health by Peggy A Thoits are included below.

“Sociological studies over several decades have documented marked social inequalities in physical and psychological well-being, and these findings have been remarkably stable over time: Women live significantly longer than men, but they suffer more acute transient illnesses, more chronic health conditions, and more serious functional disabilities than men (Verbrugge 1989). Although women and men have equivalent rates of mental health problems, their problems differ in kind. Women report higher levels of psychological distress and have higher rates of mood and anxiety disorders, while men have greater alcohol and drug problems, substance use-disorders, aggressive behaviors, and antisocial personality disorders. (Kessler et al. 2005b; Kessler and Zhao 1999; Mirowsky and Ross 2003b).

[Some] particularly efficacious stress-buffers: a sense of control or mastery over life, high self-esteem, and social support. A sense of control or mastery is a generalized belief that most circumstances in one's life are under one's personal control. High self-esteem is a perception of oneself as a good, valued, and competent person. Social support refers to emotional, informational, or practical assistance from significant others, such as family members, friends, or co-workers; support actually may be received from others or simply perceived to be available when needed. All three of these resources augment individuals' abilities to cope with stressful demands. Mastery and self-esteem encourage active attempts at problem-solving, and perceived social support, especially perceived emotional support, diminishes stress-induced psychological distress and physiological arousal (Kessler and McLeod 1985; Pearlin et al. 1981; Taylor and Stanton 2007; Thoits 1995; Turner and Roszell 1994; Uchino 2004). Lower status, disadvantaged group members (women, minorities, unmarried persons, working class and poor individuals) generally have lower levels of these coping resources (Thoits 1995; Turner and Marino 1994; Turner and Roszell 1994), which means that they are doubly at risk of developing ill health and mental health problems: Acute and chronic stressors are concentrated in the very groups that are deficient in these stress-buffering assets.

The impacts of stressors on health and well-being are reduced when persons have high levels of mastery, self-esteem, and/or social support. With respect to policy, to help individuals cope with adversity, tried and true coping and support interventions should be more widely disseminated and employed. To address health inequalities, the structural conditions that put people at risk of stressors should be a focus of programs and policies at macro and micro levels of intervention.”

## **Stress reduction and control methods**

Whilst we can't control the external world we can become master of our own bodies and equip ourselves to the best of our abilities to deal with the stresses that everyday life throws our way. We can break this project down into three sections, nourishment, movement and rest.

### **Nourish**

Without adequate food and water our bodies would waste away until they can no longer support life. Our privileged lifestyles make starvation incredibly unlikely however an abundance of convenient food choices and the indulgence of wealth mean that many of us are an unhealthy weight and through overeating can even become malnourished. Bodies running on sub standard fuel produce sub standard results including fatigue, slow mental processing, poor immune system and a poor quality of sleep.

### **Hydration**

All day every day we are constantly losing fluid through water vapour in the air we breathe out and from the pores of our skin. Even a minor level of dehydration, around 2% or more, can disrupt your body's functions and result in a number of nasty side effects. Symptoms of dehydration include sluggishness, loss of concentration, headaches, a lack of appetite, feeling hot, light-headedness and nausea.

If the climate is hot or humid and you are exercising or working hard dehydration can sneak up on you to sap your energy and leave you feeling terrible. Serious dehydration can lead to heat stroke or worse. It can take over 24 hours to get back to a well-hydrated state so keeping tabs on what you're drinking will help to avoid dehydration and keep you feeling your best.

How much should you drink? The general guidelines suggest taking on between 1.5 and 2 litres of fluid per day. This will be made up from the things you drink and the food you eat. Fruits and vegetables contain a great deal of water so if you are eating plenty of them it will help you get towards your hydration target.

The number one choice of drink is water; it contains no calories or additives, is easy to get hold of and is generally free. Alternatives to water include squash, milk, fruit juice tea and coffee. Try to limit your consumption of fruit juice to 1 glass each day because it is high in sugar that is bad for your teeth and will add to your daily calorie total. There is a vast array of different tea options available in the shops varying from decaffeinated teas like fruit, herbal and redbush to lightly caffeinated green teas and fully caffeinated black teas. There is good news for the coffee lovers too; new studies have shown that if you are a regular caffeine drinker caffeinated drinks won't have a diuretic effect on your body and can count towards your daily hydration goal.

## **Food**

Every aspect of our health and happiness comes down to balance; work to home life, exercise to rest, and family time to own time. Nutrition is no different, balance is key. All food is broken down into three categories, carbohydrates, proteins and fats. Most foods have a combination of all three but will contain predominantly one. Getting the balance right will have you feeling healthy and energized and can help you to maintain your focus and productivity. There are three macronutrients to consider:

**Carbohydrates** are considered to be complex, coming from foods like whole grains, pasta, rice and vegetables, or simple like refined table sugar, fruits and sweets. They provide an easy access energy source and can be a great place to load up on vitamins and minerals. The fibre from complex carbohydrates helps to fill you up and keeps your digestive system running smoothly. Simple sugars from fruit can be a nutritious way to get an energy boost or a healthy dessert to finish a meal.

**Proteins** are the building blocks of your body, without them you could not repair damaged or aged cells and structures. They are also responsible for carrying oxygen in the blood and for sending messages throughout the body.

You'll find all the protein you need in animal products (meat, fish, dairy, eggs etc) but they can also be found in smaller quantities in nuts, vegetables, soya products and legumes. Vegetarians need to eat a wide variety of foods to make sure they get all the proteins their bodies need whereas meat eaters can rely solely on animal products.

**Fat** is essential to our diet as it is present in every cell of our body and plays a direct role in brain and organ function. There are 4 vitamins that your body can't process without dietary fat so a diet that excludes fats can leave you severely malnourished. Fats are found in animal products, nuts and seeds, and to a lesser extent in vegetables. Manufacturers create hydrogenated or trans-fats to use in processed foods because it is cheap and versatile but it is by far the worst type of fat for you to eat. Hydrogenated fats aren't easy for your body to deal with so they tend to remain "stuck" in blood circulation. A long-term intake of this type of fat can significantly increase the risk of cardiovascular disease and possibly also cancer. Saturated and unsaturated fats are all good sources of energy but are high in calories (9 calories per gram compared to 4 calories per gram of protein or carbohydrate), which means limiting your consumption will help to control your weight.

One of the hardest things about managing your diet is getting the right amount of each macronutrient. Too little of any of them will leave you malnourished and eating too much can lead to weight gain, osteoporosis, diabetes and more.

Fortunately our bodies are good at creating balance which means our nutrition doesn't have to be spot on at every mealtime. As long as overall your diet has a good ratio of the three macronutrients occasional under eating or overindulging won't have a detrimental effect. Suggested intakes vary from person to person but as a rough guideline you can use the hand model. Each meal should have the equivalent of one cupped hand of carbohydrate (two for men), a palm sized serving of protein (two for men) and a thumb sized portion of fat (two for men). Hopefully your hand size is proportional to your height so this should be an adequate amount of food.

Processed foods (anything with a list of ingredients on the back of the packet) are likely to contain a lot of undesirable extras like sugar, hydrogenated fats and salt. Eating more whole foods will give you more control over the nutrients in your diet and cooking large batches of food that can be boxed up into portions to be eaten later that week or stored in the freezer is a great way of guaranteeing easy access to good for you food without having to rely on ready meals.

## **Breakfast**

If you've made a commitment to eating more healthily, or getting fitter or you're just looking to be the best version of yourself, the first place to start is at the beginning of your day. Routines may vary but one thing remains constant if you don't already eat breakfast you need to start.

There has long been a widely held belief that eating breakfast every day will help you to lose weight. Recent studies however have found no link between breakfast eating and weight loss although it has been found that there is a strong correlation between breakfast skipping and obesity. So, while eating a healthy breakfast won't necessarily make the pounds drop off, skipping the meal altogether could be a trigger to piling on the pounds.

There are plenty of benefits to eating a healthy breakfast every morning including:

- Improved concentration and performance
- Waking up your digestive system and getting your bodily functions up and running
- Improving your mood and energy levels
- Lowering cholesterol.

Skipping breakfast will make your sensitivity to insulin (your blood sugar controlling hormone) decline which will have the effect of making your body accumulate, store and keep fat for longer.

So, whether you're rushing out of the house in the small dark hours of the morning or you have a more leisurely am routine make sure one of your priorities is a healthy breakfast. Include a source of protein and some wholegrain to keep you feeling fuller for longer. Go for something like eggs if you have the time or if you're in a hurry grab a Greek yoghurt with some fresh fruit or a bowl of wholegrain cereal like porridge. Even if you opt for the quick options you'll only be adding 5 minutes to your morning routine and by eating breakfast you'll be helping to stave off unhelpful cravings for the rest of the day.

## **Booze**

It helps to understand a little more about how alcohol works in your system and what the short term and long term effects can be. Alcohol is a depressant drug that slows down your vital functions, reduces your rational thinking and distorts your judgment. Once consumed, alcohol is absorbed into the bloodstream through the walls of the stomach and small intestine. It is then quickly delivered around the body to the brain where it starts to affect the action of nerve cells and disrupt neural function. Our bodies are well set up to deal with toxins and have the ability to metabolize alcohol by turning it into nontoxic substances in the liver. This system works well to clean up undesirable toxins from the blood but, because the capacity of the liver is low, it can take a long time to completely remove excess alcohol.

If you've ever had one too many you've probably experienced the short-term health effects of alcohol first hand. They include slurred speech, drowsiness, vomiting, headaches, impaired judgment, unconsciousness, blackouts and coma. None of which are considered desirable whilst sober but many of which are accepted as part of a big night out. The hangover associated with the morning after can see you dry mouthed, fuzzy headed and often mildly regretful. Although these effects are short lived, regular over indulgence can

lead to longer term health effects less easy to stomach like alcohol poisoning, high blood pressure, liver damage, nerve damage, permanent brain damage, malnutrition and cancer of the mouth and throat.

The good news is that a moderate consumption can lead to a wealth of health benefits. In general, moderate consumption equals 1 drink per day for women and 2 drinks per day for men (drinking a week's allowance in one go doesn't count!) If you stick to this modest consumption you can expect to benefit from:

- Increased HDL or 'good' cholesterol that will help to lower your risk of developing cardiovascular disease.
- Extended lifespan as seen in the Mediterranean diet that includes a glass of wine with lunch or dinner and has been shown to add a few years to your life.
- Decreases the chance of developing dementia. A large-scale study, which has been following participants since 1977, has found that moderate drinkers are 23% less likely to develop cognitive impairment diseases.

Controlling your alcohol intake comes more easily to some than it does to others so if you'd like to cut down there are a few tricks you can try. Drinking socially in pubs and bars can be a minefield of buying rounds and keeping up with big drinkers. To avoid excessive consumption you can implement the 'every other' rule by following every alcoholic drink with a non-alcoholic drink. You'll halve your intake for the evening and the extra hydration will keep the next morning's hangover at bay too. Avoid cocktails as these have a minimum of a double shot in them and are very easy to drink quickly. Reduce the amount you consume by drinking half pints of beer or cider or small glasses of wine. If drinking at home is more your style, lay some ground rules like only drinking on two nights each week or giving yourself a ration to last the whole week. Be aware of how much you drink each week and, if you think it's too much, try cutting down by keeping a supply of enjoyable non-alcoholic beverages in the fridge as alternatives.

## **Move**

Modern life has evolved to be as energy efficient as possible. Cars deliver us from one place to another, washing machines, dishwashers and vacuum cleaners take the brunt of household chores, central heating keeps us warm, water pours freely from the taps and a week's food can be collected from the supermarket in one go. The effort has been taken out of our lives and the health benefits of an active lifestyle have gone along with it.

In order to keep our heart and lungs functioning well and to stave off disease we need to make sure that constructive exercise is a regular part of our week. Want to live longer, protect yourself from developing heart disease, stroke, high blood pressure, high cholesterol, type 2 diabetes, osteoporosis, and reduce the risk of developing certain cancers? How about relieving symptoms of depression and anxiety or preventing weight gain and promoting fat loss? Regular physical activity can literally change the shape of your life.

Adults are recommended to take a minimum of 2.5 hours of moderate exercise or 1.25 hours of more intense exercise per week. Moderate exercise can be any physical activity that raises your heart rate and makes you breathe a little more heavier. Options for moderate exercise include walking, cycling, swimming, yoga, pilates, and dancing. To make exercise more intense you need to push your heart rate higher to the point that your breathing is heavy but you can still carry out a conversation in short sentences. You can pick up the pace on a walk to make it brisk or increase the speed up to a jog or run, cycle harder, swim faster, or take an aerobic style class.

In an office environment where you're expected to be for 8 hours a day it can be difficult to prioritise movement over work but a little activity can make a big difference to productivity. Take 5 minutes at the start of your day to stretch your hamstrings and hip flexors and to mobilise your neck and shoulders. Just a few movements can help to release tension and help to increase focus. Make a point of getting up and moving around while you're considering a problem. Take regular breaks to stand and stretch and commit to taking a stroll after lunch to help boost circulation.

There are loads of ways you can incorporate exercise into your downtime as well. If you'd like the personal touch you can employ a personal trainer who will design a fitness program specifically suited to your needs and goals and will give you a high level of support. There are plenty of exercise classes available that will put you through your paces at the same time as giving you some accountability and a bit of community. Yoga and pilates are excellent for strengthening and conditioning muscles without high intensity or impact. If you prefer your exercise of the higher octane variety you could try a high intensity interval training class for a short sharp burst that will keep you going all day. The gym is a great place to find fitness inspiration and get access to a variety of exercise classes and equipment. Most commercial gyms will also provide a free exercise plan from a personal trainer to get you on track to hit your fitness goals.

## **Sleep**

One of the cornerstones of good health is a good night's sleep. We all know the feeling of waking up refreshed and ready to take on the day but few of us are achieving this with any kind of regularity. There are many contributing factors for a good night sleep ranging from bedtime routine to daily diet and exercise.

Our natural sleeping pattern is controlled by the amount of daylight to which we are exposed. The rising of the sun in the morning stimulates a release of hormones that start to ease us awake and likewise in the evening as light levels decrease other hormones are released to start the unwinding process that leads to sleep. Your body clock is wired into the circadian cycles of day and night, the effects of which can be seen when travelling from one time zone to another in the associated jet lag. It can take a number of nights to get your wake/sleep cycles back on track after the disruption of a long journey or



after a period of night shifts. Continued disruption of your body clock by frequent travelling or continuous night shifts can have a negative affect on your health and has been linked to issues such as obesity, type 2 diabetes, heart disease, cancer and depression. Even a regular reduction of a couple of hours sleep each night from our modern day tendency to burn the candle at both ends, is contributing to increased weight problems, disease and premature death.

The invention of the light bulb saw the start of artificially lengthened days allowing us extra hours of productive work time and giving us endless hours after work to enjoy other activities. Television, the Internet, shops, gyms and bars are available 24 hours a day and give us all the opportunity we need to spend our free time engaging in any activity we choose at a time that is convenient to us. What we've given up for this freedom is the routine that restricted daylight hours gave us. Just like children need routine meal times and bedtimes to maximize their development, so do we. Although we're not growing, our adult bodies are constantly regenerating and repairing and our brains are dealing with complex issues even when, we're not consciously thinking about them. Sleep is your body and minds chance to get on top of the demands you've placed on them during the day.

The general consensus is that adults require 7-8 hours sleep each night to function properly although this can vary for individuals. Sleep patterns change as we age, not because we need less sleep but because our sleep becomes more easily disturbed. In order to get as much good quality sleep as possible here are a few things you can try.

- First, think about the environment you sleep in. Your bedroom needs to be dark with as little light pollution as possible; even a small LED standby light can emit sleep-disturbing rays. Your room also needs to be a comfortable temperature, somewhere between 18-21 degrees is ideal.
- We associate rooms with certain activities so just as you wouldn't have a bath in your living room you shouldn't be living in your sleeping room. Looking at back-lit screens like televisions, computers and phones sends a wake up call to your brain so avoid screen time for at least 30 minutes before going to bed. Likewise, it's important to de-clutter your bedroom of electronic gadgets and other distractions so that when you're in bed your brain receives the signal that it's time to relax and switch off.
- Have a regular getting up time and stick to it even on days off, this will help you to know what time you need to get to bed in order to get the sleep you need.
- Exercise can help to release tension as well as tiring your body so making it a regular part of your day can help to get you off to sleep more quickly. However, beware extreme exercise in the evening as it will release adrenalin into your body that will keep you wide awake.
- Alcohol, caffeine and sugar all harm the quality of your sleep so keep your regular consumption of them low and avoid them altogether in the hours before bed.

Overall, sleep should be considered a vital and desirable part of a healthy lifestyle and should be given the same attention as diet and exercise. You may be surprised how much more you can get out of each day when you're well rested. So try setting a few rules for your bedtime routine over the next couple of weeks and see if you can make a difference to your quality of life.

### **What is a value?**

A value is a driver, or sometimes known as a person's hot button. Your values are linked to your motivators. It is a feeling inside you, which is linked to your emotions. It's a feeling of drive towards getting what you need, or want when you are in an environment at work. A value is what prompts you to act in a certain way, where you develop an inclination for a specific behaviour and to complete something (motivated) either quickly or not. If your values are being met you are motivated and happy in a health & fitness context.

#### **Task:**

**What health and fitness goal do you want to complete, so that you can your own work performance and have the perfect life balance? Have a think about the outcome you would like and have after this session.**