








The Five Pillars of Health

ReMark's Health & Wellness white paper for the Good Life app



Contents

	Introduction	3
	Pillar 1 Physical activity	4-10
	Pillar 2 Sleep habits	11-17
	Pillar 3 Mental health	18-24
	Pillar 4 Social health	25-31
	Pillar 5 Nutrition	32-38
	Conclusion	39
	Appendix	40

Introduction

We're all living longer thanks to medical advances. But, while global life expectancy has increased by more than six years¹ – these extra years aren't necessarily healthy ones.

Some diseases and conditions are unavoidable but the root of many chronic health issues, particularly non-communicable diseases, can be found in poor lifestyle behaviours such as a lack of exercise or a bad diet. Globally, we are seeing rising numbers for serious health conditions including diabetes, cardiovascular disease and cancer.

Although it can seem overwhelming, just small changes to our lifestyle habits can make big differences to our health. Simple goals such as an extra 1,000 steps a day, a regular bedtime and even a chat with your friends can boost your long-term wellbeing. Different areas of our health are interlinked, so improve one and it'll have benefits for other areas too.

It's something we've recognised at ReMark. All our digital health solutions are based around the five pillars of health – physical activity, sleep habits, mental health, social health, and nutrition.

Taking a holistic approach enhances engagement, pulling in people who might shy away from a programme only focusing on physical or mental health, for example. It also improves results: by enabling people to make small changes in the pillar or pillars of health they do engage with, it benefits other areas of their health too.

In this report we explore each of the five pillars in depth, showing how they're linked and the simple steps individuals can take to lead a healthy, happy and long life.

A good life is just one step away.



Pillar 1

Physical Activity



Quit a sedentary lifestyle!



Regular physical activity has significant benefits for our health. Making it a habit, whether that's a Saturday afternoon bike ride, an evening walk in the local park or a 30-minute gym session before work, can have far-reaching effects on our health and wellness.

Keeping active can help prevent and treat noncommunicable diseases such as cardiovascular diseases, cancer and diabetes. It will also reduce the risk of hypertension and obesity and improve cognitive health, mood, and overall wellbeing.

The good news for anyone who has avoided exercise since school sports lessons is you don't need to book on to a daily three-hour bootcamp session or start running early morning marathons. Just a small increase in your activity levels can reap huge benefits.

Every extra
1,000-2,000
steps a day
can lead to a...

12%
reduction in
mortality risks and...

13-21%
less risk of cardiovascular
disease and diabetes²



Risks of physical inactivity

Physical inactivity is widely accepted as an urgent public health crisis. The World Health Organisation's (WHO) Global Action Plan on Physical Activity 2018-2030 sets a target of a 15% relative reduction in the global prevalence of physical inactivity in adults and adolescents by 2030.³

It's easy to see why the WHO wants to change habits. Its study on worldwide trends in physical activity levels between 2001 and 2016 found that more than a quarter of the world's population – 27.5% – did not meet its guidelines for 150 minutes of physical activity a week.⁴ High levels of physical inactivity not only have devastating consequences for individuals but also for the broader society. For individuals, physical inactivity is a major contributor to death and disability from noncommunicable diseases globally.⁵

For instance, a recent study involving researchers from Harvard Medical School showed that 7.2% of all-cause and 7.6% of cardiovascular disease deaths were attributed to physical inactivity. Continuous physical inactivity can also accelerate the ageing process. Research found that a reduction in daily step counts can lead to a 4% loss of muscle mass and up to 20% loss of muscle strength.⁶ This increases the risk of falls and can have debilitating consequences on long-term health.

Physical inactivity also places a significant economic burden on society. The effect of physical inactivity on five major noncommunicable diseases and all-cause mortality is estimated to cost the global economy more than \$64.5 billion through healthcare expenditure and productivity losses.⁷





How getting active benefits health

Prioritising action to reverse the inactivity trend is essential. Being more active more often can reverse many of these risks to our health.

- 40 - 53% reduction in risk of all-cause mortality by taking more steps every day.⁸
- 21% reduction in mortality risk by increasing your volume of activity from 15 to 20kJ/kg a day⁹ with moderate-vigorous intensity exercise linked with the greatest reduction in risk.
- 20-34% reduction in mortality risk and 14% reduction in cardiovascular risk by increasing physical activity levels above 600 metabolic equivalent minutes (see 'Meet the Met' box on page 12) a week (equivalent to 150 minutes of brisk walking).¹⁰





Understanding how regular exercise improves an individual's health can help to create an engaging wellness programme.

Cardiorespiratory fitness

Cardiorespiratory fitness is a measure of how well the body processes oxygen, which is often highlighted on fitness wearables as 'cardio fitness' or VO_2^{max} . High scores have positive health implications with research finding that individuals with high cardiorespiratory fitness who met their physical activity recommendations had greater mortality risk reduction.^{11,12}

Cardiorespiratory fitness and physical activity are closely linked, with increases in activity levels feeding through to higher fitness scores.

Mobility

Age-related loss of muscle mass, strength and function is linked with up to two times increased risk of mortality¹³ but higher levels of physical activity, especially from resistance exercise and activities at moderate-vigorous intensity levels, can hold back the ageing process through greater muscle strength and power.¹⁴ A varied activity regime that includes aerobic and resistance exercise can enhance health-related fitness, increase muscle strength, and improve balance and mobility.

Healthy body weight

Body weight and physical activity are important predictors for health and mortality. Keeping active improves weight status, prevents obesity, reduces the risk of weight-related health issues and mortality and may help to regulate appetite.





Resting heart rate

The connection between resting heart rate and mortality is well-established in scientific research.¹⁵⁻²⁰ An elevated resting heart rate can increase the risk of all-cause mortality by 17%²¹ and, as a marker of subclinical disease state, is also a predictor of heart health and cancer risk. Increases in physical activity levels drive improvements to both cardiorespiratory fitness and resting heart rate.

Mood

Physical activity benefits your mental and emotional wellbeing. A release of endorphins can do wonders for your mood, confidence and self-esteem. Exercising with a friend or family member can also boost social wellbeing, providing opportunities for interaction and connectedness and reducing isolation and loneliness.

Sleep

A two-way relationship exists between sleep and physical activity. Sleep is an essential physiological process that supports the body's recovery so we can function – and exercise – well the following day. Regular physical exercise helps you fall asleep quicker and improves sleep quality. More information on this can be found in the sleep pillar chapter.

Meet the 'MET' **Measuring your physical activity**

So you want to get more active? Understanding the physical load your body exerts through different types of exercise is a good place to start.

The MET – or 'Metabolic Equivalent of Task' – is a measurement based on the amount of oxygen your body uses to create energy to perform an activity.

One MET is defined as the energy you use when you're resting or sitting still, with higher MET values given to more vigorous activities. For example, walking slowly is 2.0 METs, housework 3.5 METs and playing singles tennis is 8.0 METs.

To work out how many metabolic equivalent minutes you've achieved, multiply the MET value of the activity by the number of minutes you did it. A 20-minute walk with a MET value of 4.0, would give you 80 metabolic equivalent minutes.



Action points

These are some **key action points** to help make **physical activity a regular habit**.

1

Take that first step

Even a small increase in physical activity reaps significant benefits.

2

Up the ante

Including a higher proportion of moderate-vigorous intensity physical activity is linked with greater reduction of mortality risk.

4

Mix it up

A varied programme of aerobic and muscle-strengthening physical activity can deliver a broader set of health-related fitness results, including increased muscle strength and improved balance and mobility. *(see below for WHO recommendations)*

3

Do it together

Exercising with a friend or family member can boost social wellbeing, making it more fun and helping to prevent feelings of isolation and loneliness.

5

Measure your progress

Keeping a tab on metrics such as resting heart rate, number of daily steps or body mass index can highlight successes, help to refine activity programmes, and improve lifestyle-based goal setting.

6

Make it fun

The good news is the simplest way to adopt more physical activity is to find something you enjoy doing. If you love it, do it.

WHO physical activity guidelines

Adults – at least 150–300 minutes of moderate-intensity aerobic physical activity or at least 75–150 minutes of vigorous-intensity aerobic physical activity a week.

Also include some muscle-strengthening activity on at least two days a week.

Adults aged 65+ should also include functional balance and strength training on at least 3 days.

Pillar 2

Sleep Habits



We all need our beauty sleep...



As humans, we spend around a third of our lives sleeping. That's approximately 26 years or about 9,500 days for the average person. As it's something we spend so much time doing, it's important to understand how it fits into our overall health and wellness and how to get the most from all those hours of snoozing.

Although there are still plenty of mysteries around sleep, it is recognised as a naturally occurring state and an essential physiological function supporting our physical and mental performance and wellbeing. Good sleep is fundamental to healthy living, supporting regular exercise, healthy nutrition, and mental health.

To reap these benefits, the amount of sleep we need each day varies with age. While babies are the sleep champions, requiring 12-16 hours a day to fuel their growth and development, adults need seven or more hours a night.²²

And, despite popular misconceptions, even teenagers only need between eight and ten hours every 24 hours. But the length of time you spend in bed is only part of the sleep equation. Sleep medicine scientists recognise that other elements are also key to sleep health. Buysse²³ states there are five dimensions of good sleep: duration, timing, continuity, alertness, and quality.

As each of these dimensions is associated with health outcomes and risks, it makes sense to characterise sleep using these different metrics. Measuring them – and adjusting them – can help you get the most from your sleep.



Risks of poor sleep

For anyone with work or family commitments, it probably comes as no surprise that we're facing a sleep deprivation crisis. Globally, it is estimated that 63% of us don't sleep well when we go to bed.²⁴

This poor sleep health can affect our physiological, cognitive and psychological functioning, with potentially serious implications for health and wellbeing.

Take sleep duration as an example. Fail to clock up that all-important seven hours every night and it'll start to disrupt your metabolic, endocrine and neurological functions. These are essential for maintaining health, with disruptions linked to the risk of developing chronic health issues including cardiovascular disease, diabetes, cancer, and obesity.





Consistency is what's important too, with both too little and too much sleep potentially having an adverse effect on our health. In fact, catching up on your sleep with a regular lie-in could be even more damaging than staying up too late.

\$94.9 billion the healthcare cost related to sleep disorders in the United States in 2018.²⁷

Sleep timings are also linked to health risk. Going to bed and waking up at regular times shapes our sleep pattern and improves the quality of our sleep. Remove this regularity and the disruption to your circadian rhythm puts you at higher risk of conditions such as obesity, diabetes, hypertension and depression. It can even increase the risk of musculoskeletal injuries and work-related disabilities.

One study led by Harvard Medical School found that shift work increases the risk of type 2 diabetes by 18% for some night shifts and 44% for usual night shifts.²⁶ When they looked at the frequency of night shifts, the greatest risk – 36% – was among those who worked more than eight night shifts a month.





How good sleep benefits health

Good sleep is fundamental to our health, affecting everything from what we eat to our risk of serious long-term health conditions. Its importance, and its relationship with our areas of our health, makes it a key part of any wellness strategy.

Improvements to physical activity

Sleep and physical activity are closely interlinked. Regular physical activity is often associated with improved sleep quality, with doctors recommending exercise as a non-pharmacological intervention to improve sleep.

Similarly, fail to get your seven hours, and it'll affect your daytime energy levels and your desire to workout. What's more, a large UK BioBank study²⁸ found that the mortality risks from having poor sleep were exacerbated by low levels of physical activity.

This connection between the two supports the recommendation that both sleep and physical activity should be targeted concurrently to achieve better health and lifestyle outcomes.

7 hours (per night)
the recommended
sleep duration for adults





Improvements to mental health

Sleep and mental health are common bedfellows. Sleep disturbances feature almost universally in most mental health conditions. As an example, in patients with depression, up to 90% have issues with sleep.²⁹ This relationship does mean that improvements in sleep quality can lead to greater improvements in mental health issues, potentially influencing the trajectory and severity of mental disorders such as stress, anxiety, and depression.³⁰ Promoting the benefits of good sleep habits should be integral to any programme that focuses on mental health and wellbeing.

Improvements to nutrition

A healthy, balanced diet can do wonders for your sleep, with the nutrients promoting a good night's rest and reducing insomnia symptoms.³¹ Poor sleep patterns can also affect our appetite, disrupting our hormones and leading to changes in our brain that regulate food intake. It may seem counterintuitive but an extra hour's nap could actually benefit your waistline as well as your long-term health.





Action points

These are some **key action points** to help **improve sleeping habits**.

1

Be consistent

Going to bed and rising at around the same time is the best way to get good quality sleep. Being consistent helps to shape your sleep patterns and improve sleep quality – your body and mind will thank you for the regular routine.

2

Get a pre-sleep routine

Winding down before bedtime prepares your body for sleep. This could include reducing light exposure, limiting the use of electronic devices, reading a book or taking a hot bath. Once your routine is established, your body will recognise it as a cue for sleep.

4

Eat to sleep

Avoid heavy meals and the consumption of caffeinated and alcoholic beverages close to bedtime as they can disturb your sleep. Instead eat a healthy and balanced diet during the day.

3

Exercise regularly

Its ability to wake you up means strenuous exercise is best avoided close to bedtime but having a regular exercise regime can help to promote better sleep quality.

5

Commit to relaxation

Prepare your mind and body for sleep by relaxing before bedtime. It could be a hot bath, meditation or breathing exercises to improve mindfulness and get you ready for bed. Other factors that can help get you in the mood for sleep are setting the right temperature in your bedroom; keeping it tidy and keeping the noise levels low.

6

Track it

As so many variables can affect the quality of your sleep, it makes sense to use a sleep tracking device to monitor what happens when you do go to bed. By understanding how many hours of sleep you get and its quality, you can make changes that will help you reap the health benefits associated with achieving the seven hour target.

7 hours (per night) is the recommended sleep duration for adults aged 18-60

7-9 hours for those aged 61-64 and 7-8 hours for those 65+

9-12 hours for children aged 6-12 and 8-10 hours for teenagers (How Much Sleep do I Need? | CDC)

Pillar 3

Mental Health



It's okay to not be okay



Our mental health is integral to all aspects of our health, with the World Health Organisation (WHO) declaring that 'there is no health without mental health'.³²

It defines mental health as 'a general state of well-being in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community'.³³

As well as an absence of mental health disorders, good mental health is about having a positive sense of wellbeing. This can affect everything we do, from our lifestyle choices to how we deal with challenges and change.

The numbers are huge. Mental health disorders have been rising over the past three decades according to the Global Burden of Disease Study. In 1990, there were an estimated 654.8 million people with mental health disorders: by 2019, the number had increased by 48.1%, with 970.1 million people affected.

Given these statistics, it's not surprising that the probability of experiencing a mental health issue is relatively high too. Nearly one in six of us will have a common mental health issue such as depression or anxiety at some point in our lives.³⁴



The Covid-19 pandemic had a major influence on mental health too. Worrying about the virus, the health of our friends and family and our employment alongside dealing with feelings of isolation, grief and lack of control triggered a global mental health crisis. The Global Burden of Disease Study points to a 27.6% increase in cases of major depressive disorder and a 25.6% increase in cases of anxiety disorders worldwide in 2020.

These figures are concerning but there are positives to take from the pandemic too. Living through the pandemic has put mental health more squarely on the agenda. The shared experience made it ok to ask friends and colleagues if they were ok.

By raising awareness of mental health and making it easier for people who are struggling to ask for help, it should make it easier to tackle this global issue.





Risks of poor mental health

Poor mental health has serious implications for an individual's health and wellbeing. **People with mental disorders have a mortality rate that is 2.22 times higher than those without.**

14.3% worldwide are attributed to mental health problems.

Poor mental health pushes up the risk of many serious conditions including obesity,³⁵ hypertension,³⁶ cardiovascular disease³⁷ and diabetes.³⁸ As an example, studies have found that mental health issues are linked with an increased risk of up to 54% of developing coronary heart disease,³⁹ with common mental health conditions such as anxiety and stress increasing the risk by 41% and 27% respectively.

Some of this increased risk is likely to be caused by the interplay between our mental health and lifestyle choices. Feel depressed or anxious and you are much less likely to do the things that benefit your health such as eat a healthy diet, exercise and socialise.

Neglecting all these other aspects of our health as a result of poor mental health then pushes up the risk of developing

other health issues. For example, common cancer risk factors include being overweight, smoking, alcohol consumption, inadequate sleep and a lack of physical activity – all of which can be linked to mental health problems.

Mental health is also a huge burden on the global economy, both in terms of treating illness but also in lost productivity. It's estimated that the two most common mental health conditions – depression and anxiety – cost the global economy \$1 trillion a year and result in an estimated 12 billion working days lost.⁴⁰

And things are set to get worse, with a report forecasting that the global economic output loss associated with mental disorders will double between 2011 and 2030 to an estimated \$16.1 trillion.



Influences on our mental health

Positive lifestyle habits can help to foster good mental health and wellbeing. To help determine what works, it's important to look at how our mental health is affected by other elements of our health and lifestyle.

The impact of physical activity

Exercise can enhance mood, reduce stress, decrease anxiety and lower risk for depression. Studies have found that just 10 minutes' physical activity a day is enough to see improvements in mood.⁴¹

Beating the daily 10,000 step target can also deliver big benefits. Research has found that while there is a 5.36% improvement in stress among those reaching their 10,000 step target, the improvement increased to 10.13% among those who exceeded the target.



**10,000
daily steps**
= 5.36%
reduction in stress

Even gentler exercise such as yoga and stretching can be just as effective in the treatment of depression and anxiety.⁴²



The impact of sleep

Sleep and mental health are closely linked, with poor sleep contributing to mental health issues, and mental health issues leading to sleep problems.

Good sleep is important for our mental wellbeing. One study found people with insomnia are two times more likely to develop depression than individuals without sleep difficulties.⁴³

Our mental health benefits by changing bedtime habits to improve sleep quality, with research finding that people reported fewer incidences of depression and stress.⁴⁴

The impact of body weight

Results from several studies have shown a link between weight and mental health and wellbeing. One found that being overweight or obese was linked with increased risks of depression and anxiety disorders at 27% and 55% respectively. The relationship works the other way too. Someone with depression has a 20% higher risk of being overweight and 58% risk of being obese.⁴⁵

The impact of mindfulness

Practicing mindfulness – such as breathing exercise – helps you focus on the present moment while acknowledging and accepting your own thoughts and feelings. It can be useful for people with mental health issues. Its effectiveness has been shown in several studies, delivering results such as reduction in perceived stress, alleviation of depressive symptoms and a reduction in disorder severity.⁴⁶





Action points

The following action points can help support our mental health and wellbeing.

1

Get active

Physical activity can enhance mood and reduce the risk of mental health problems. And, while a serious commitment to exercise brings the biggest benefits, you will also see results if you can only manage 10 minutes a day or prefer something gentler.

2

Maintain a healthy weight

Being overweight can increase the risk of mental health issues so aim to keep within a healthy weight range. Getting active and eating a healthy diet – where food can boost your mood – can help achieve this goal.

4

Make it social

Human beings are social animals so it makes sense that spending time with friends and family is good for our mental health. A good chat can quash feelings of loneliness and isolation, boosting your mood and reducing the risk of depression and other mental health issues.

3

Be mindful

Mindfulness can benefit your wellbeing as well as being useful for people with mental health issues, reducing the symptoms of stress and depression. Spending some time focusing on the present could deliver long-term health benefits.

5

Sleep on it

Good sleep benefits our mental health and wellbeing. Adopting healthy sleep habits such as a regular bedtime and avoiding heavy meals and caffeine before you go to bed (see our chapter on sleep for more details) can bolster all aspects of your health, including your mental health.

6

Find support

Having a good support network is critical when facing life's challenges or your mood dips. This support could come from friends and family but it might also be through a company employee assistance programme or a mental health app.

Five steps to mental wellbeing:

*Our mental health is very personal but the UK's NHS advocates **five steps to improve our mental health and wellbeing.***

*These are: **Connecting with others, Being physically active, Learning new skills, Giving to others and Mindfulness/paying attention to the present moment.***

Pillar 4

Social Health



Don't forget to share the love!



Everyone loves spending time with their friends, family or work colleagues but this social interaction also acts like a superpower, giving us a wide range of health benefits.

Positive social relationships give us protective health effects by providing health role models and encouraging healthy behaviours.⁴⁷ It may be that your friend joins a gym or signs up for a 5k race and you go along to keep them company.

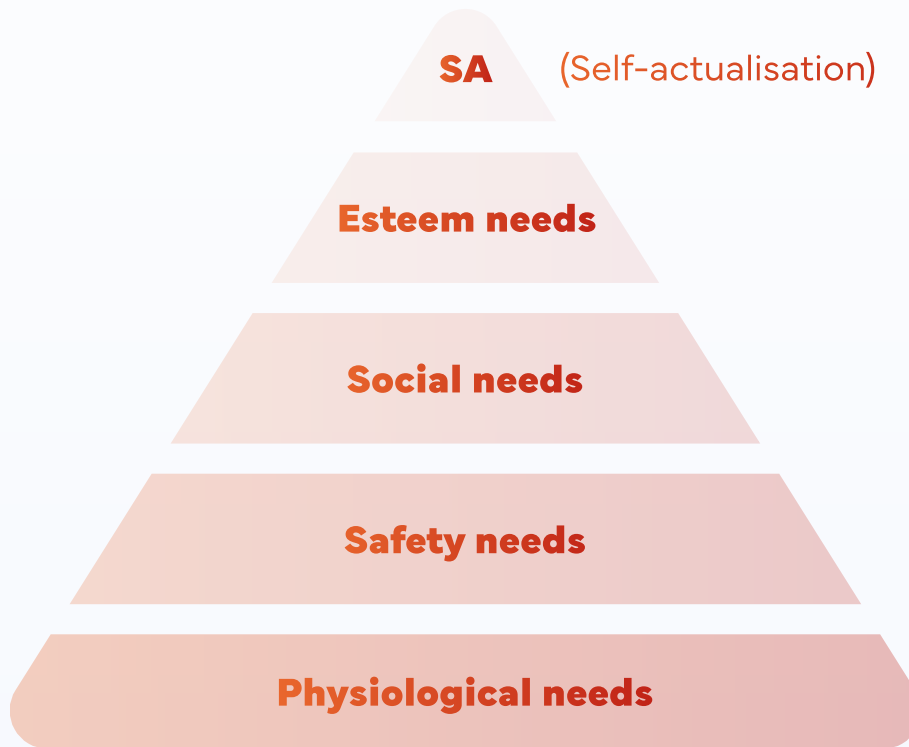
Being part of a group, whether that's a loving family or the team you spend time with at work, is good for your mental health too. As well as making you feel connected to others, it promotes self-esteem and gives you a sense of purpose in life.

Having this support squad can also protect you from the stresses that life throws our way. Whether it's money worries, family health issues or a bad day at the office, being able to share your concerns with someone else can make a huge difference. As the saying goes, a problem shared is a problem halved.

The value of social interaction came under the spotlight during the Covid-19 pandemic. Measures such as lockdowns and social distancing meant we were forced to spend more time apart and, in many cases, alone. A review of studies conducted around the world found that being forced to drop the social part of life had an impact on the mental health and wellbeing of the adult population.⁴⁸ And while you might not need an excuse, spending more time together now could help to undo some of that damage.



Maslow's hierarchy of needs



Social belonging takes up level three of Maslow's hierarchy of needs. After fulfilling the more basic physiological needs (food, water, clothing etc) and safety needs (housing, employment), humans turn to their social needs, which include building relationships, starting families and gaining a sense of belonging.

This shows the value placed on social bonds as Maslow argued that this need had to be satisfied before individuals could progress to the higher levels of esteem and self-actualisation.



Risks of poor social interaction

Humans are social beings, constantly looking to build relationships and community to thrive. Take away that social element, or have stressful social relationships with others, and there are some significant implications for many areas of our health and wellbeing.

Since it started back in 1938, the Harvard Study of Adult Development has consistently shown that good relationships are a crucial factor for physical and mental health, happiness, and longevity.⁴⁹ Social ties and networks stood out consistently as powerful predictors, trumping other factors such as genes and socio-economic status.

As well as the positives of an active social life, numerous studies have found that, as social interaction decreases, physical health risks increase.

The risk of other chronic conditions including cancer, diabetes, Alzheimer’s disease and chronic respiratory disease is also higher for individuals without friends and family to support them. Researchers across several studies found that strong relationships lowered the risk of all these conditions.⁵⁰⁻⁵²

Given its influence on other areas of our health, having less social interaction can also increase mortality risk. A study of nearly 7,000 adults in California over a nine year period found that those who lacked social and community ties were more likely to die over the course of the study.⁵³ The age-adjusted relative risks for those most isolated compared to the most social were 2.3 for men and 2.8 for women.

It’s not just a lack of social interaction that is harmful to our health. Stressful social relations are also associated with increased mortality, as discovered in one Danish study.⁵⁴

Risks that increase with poor social relationships, isolation and loneliness:

7-29%
cardiovascular disease

23-29%
stroke

Increased mortality risk

50-100% from frequent worries

200-300% from conflicts between people



Understanding how **social interaction** affects our health can help to create an **engaging wellness programme**.

Health behaviours

Positive social connections and a strong network of friends can influence and support health behaviours.⁵⁵ With the support of friends, family and colleagues, it can be easier to stick to medical regimens, smoking cessation and weight management. It can even make it easier to recover from an illness.

Eating disorders

Loneliness has been found to contribute to eating disorder symptoms.⁵⁶ A review found that eating disorders including anorexia nervosa and bulimia were exacerbated by negative interpersonal relationships, with many people saying they ate to compensate for the feeling of loneliness. Good, supportive friendships may result in healthier relationships with food.





Mental and emotional health

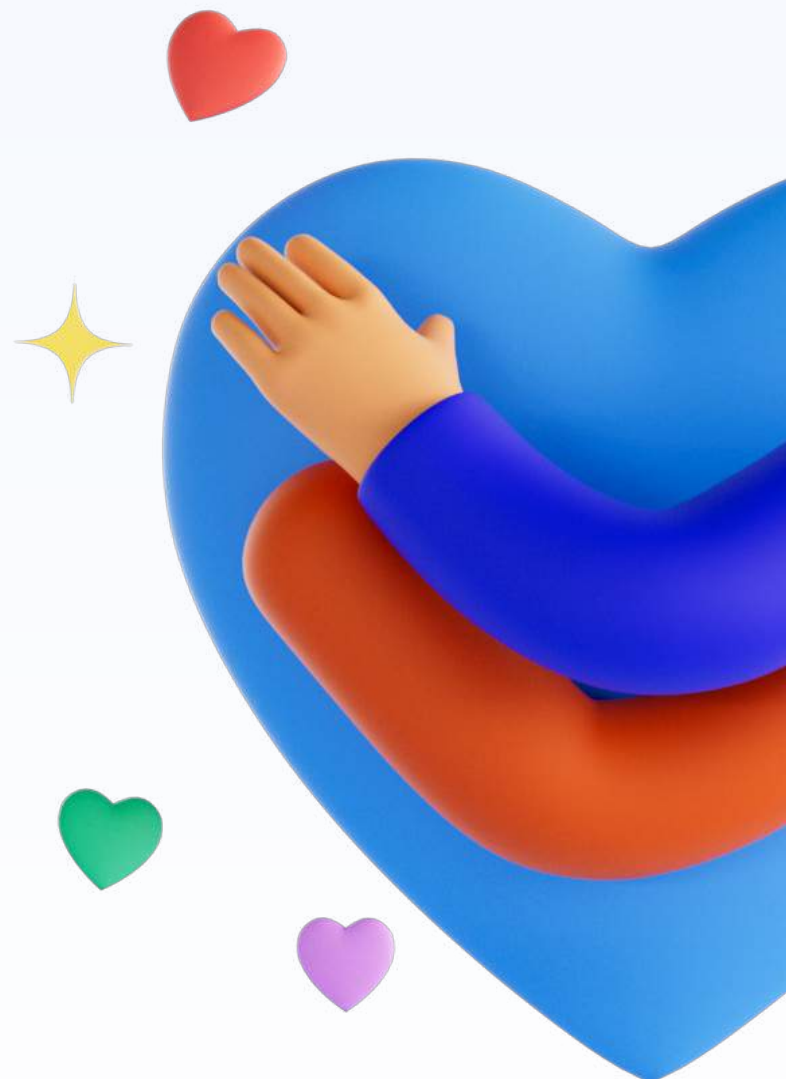
Having a good network of friends can boost your mood and self-esteem. Several studies⁵⁷ have highlighted a link between loneliness and depression. Similarly, researchers have also found that those who are highly engaged and consistently participating in social activities have a lower risk of depression and have a preserved cognitive function.⁵⁸⁻⁶⁰ Being able to have a laugh with your friends could have more long-lasting benefits for your health and wellbeing.

Digital health engagement tools

Digital tools can play an important role in lifestyle and behavioural intervention. As well as allowing you to track and monitor health metrics such as steps, sleep and heart rate, the ability to add friends means you can build a new digital community that facilitates the provision of social support. Being able to share experiences, knowledge and encouragement within this community provides emotional and appraisal support that is essential for buffering stress and enhancing motivation.⁶²⁻⁶³

Social media

The rise of technology may appear to be leading to more isolation as we huddle over our phones but online platforms can provide opportunities to promote social activities and increase integration. Social media can provide the same benefits as an offline social life, with a study⁶¹ finding that activities such as posting photos and sending messages were linked with reduced mortality.





Action points

These are some **key action points** to help make social interaction a **healthy and rewarding part of life**.

1

Make time for friends and family

Everyone has busy lives but taking time out to spend with loved ones has so many health benefits, it should be a priority. The positive energy and mental health benefits will feed through into everything you do.

2

Work together

Whether it's a work project, a fitness challenge or fundraising for a charity, working as a team can make it much more fun and creative. Being around other people can spark ideas and new ways of thinking.

4

Log in to social media

Sharing the good stuff with your friends can be a great way to connect. Using social media to ask for tips, recommendations or simply to share what you're up to can kick off meaningful interactions with others.

3

Check in on home workers

Home and remote workers usually don't have the social network of someone working in a busy office. Taking a few minutes to catch up with them will give them – and you – valuable social interaction and show your care.

5

Go digital

As well as letting you track metrics such as your steps, sleep or workouts, many health apps have social features. Getting kudos from a friend or setting up a step challenge with your colleagues can feed your social needs.

Six strategies for social wellbeing

*We all have different needs when it comes to our social wellbeing but the US National Institutes of Health has the following **six strategies for improving social health**:*

1. *Make connections*
2. *Take care of yourself while caring for others*
3. *Shape your family's health habits*
4. *Get active together*
5. *Build healthy relationships*
6. *Bond with your kids*

Pillar 5

Nutrition



Health is on your plate!



You are what you eat may conjure up visions of people turning into their favourite foods but, when it comes to your health and wellbeing, it's definitely worth paying attention to your diet.

As well as being one of life's pleasures, eating a balanced, high-quality diet can benefit your health and help to keep common lifestyle-related diseases such as cardiovascular disease, cancer and diabetes at bay.

But what is a good diet? The key recommendation in dietary guidelines around the world is to eat a wide variety of different food. This nourishes you, ensures adequate nutrients to support your body's functions and optimises your health and wellbeing. Some foods are more important than others. Vegetables, fruit, whole grains, unsaturated vegetable oils, fish and lean meat or poultry are all synonymous with a good diet.

What's more, good food can actually make us happier. Eating a balanced, high-quality diet can increase happiness, life satisfaction and wellbeing, and provide valuable protection against mental health conditions.

Benefits of eating a healthy diet

11-12% risk reduction of cardiovascular disease and diabetes.⁶⁴

up to 15% risk reduction for major cancer conditions.⁶⁵



Risks of a poor diet

Good nutrition is key to good health. The Global Burden of Disease study has found that poor diet is associated with a range of chronic diseases and a major contributor to mortality.

1 in 5 around the world is attributable to poor diet.⁶⁶
deaths

Failing to eat a good, balanced diet can increase the risk of many serious health conditions. As an example, a higher intake of dietary fat can have a negative impact on a wide range of health conditions, including cardiovascular disease, diabetes, obesity and cancer. Saturated and trans-fat are particularly harmful. Studies have shown that replacing these with foods rich in monounsaturated and polyunsaturated fatty acids, including omega-3 and omega-6, reduced the risk of cardiovascular and all cause mortality.⁶⁷⁻⁶⁸

Salt is another health concern. Excessive sodium intake is linked with increased risk of developing high blood pressure.⁶⁹ Furthermore, processed meat, with its high sodium and nitrate content, has been linked to a 22% increased risk of cancer, especially stomach, colon and rectal cancers.⁷⁰

Another favourite – sugar – is also shown to be a health foe. Eat too much of the sweet stuff and the risk of obesity, hypertension, diabetes, and high cholesterol all increase.⁷¹ There are psychological health risks with excess sugar too. It can disrupt mood and increase the likelihood of developing mental disorders such as anxiety and depression.⁷² Having too much of certain foods can push up risk but it's just as dangerous to leave things out. Several studies have shown that a more limited diet can increase the risk of mortality.⁷³



Small but powerful

Key micronutrients such as iron, calcium, zinc, folate, vitamin D and B12 are also important parts of a healthy diet.

Failing to get enough of these can cause and exacerbate serious health conditions including anaemia, osteoporosis, thyroid deficiency, cancer, cognitive impairment, and depression.⁷⁴

Micronutrients are essential for many of our bodies' functions. These are some of the main ones:

D

Vitamin D

Assists in calcium, magnesium and phosphorus absorption and promotes immune function and brain activity.

B¹²

Vitamin B¹²

Helps the body produce red blood cells and supports the brain and nervous system.

Ca

Calcium

Necessary for strong bones and teeth, it also regulates muscles, including the heart, and blood clotting.

Fe

Iron

Production of red blood cells to carry oxygen around the body.

Zn

Zinc

Production of new cells and enzymes, wound healing and processing carbohydrate, fat and protein in food.



How diet affects health and wellbeing

The connection between food and health is complex.

Here are some relationships to consider when looking to address nutrition as part of a health programme.

Nutritional knowledge

What we eat is governed by how we feel, our food culture and our experiences. But it's also impacted by our knowledge of nutrition. Good nutritional literacy enhances knowledge, competencies, and attitudes to diet, enabling positive dietary changes that have benefits for all aspects of our health. Food information and education is important to help people make better choices.

Mood

Healthy eating is associated with positive emotions, better mood regulation, lower risk for depression and anxiety, and improved overall wellbeing. Several studies have found that eating a healthy diet improves depression scores and dietary changes will often be offered as part of a package to manage mental health disorders.⁷⁵ Studies have also found that while eating a high quality diet will help us feel good, it's also important to be mindful when choosing and eating food. Being aware of how you're fuelling your body can help you make healthier food choices.





Sleep

There's a close relationship between food and sleep. Eat well and you're more likely to enjoy a good night's rest and feel more alert during the day;⁷⁶ have poor sleep patterns and your hormones can be disrupted, reducing your ability to regulate food intake.⁷⁷ Consistently getting less than six hours' sleep a night has been linked with lower quality nutrition, reduced adherence to a healthy diet and regular meal patterns. The good news is that, where this happens, getting as little as an extra hour's sleep a night, can deliver significant benefits to diet and health.⁷⁸

Activity

Good quality nutrition provides the energy necessary to support our daily activity goals but it works the other way too, with regular exercise leading to a better diet.⁷⁹⁻⁸¹

These dietary improvements are down to the mood enhancement and appetite regulation that physical activity brings. Keep moving – it's a virtuous circle.



Action points



Here are **some action points** to help you ensure your **nutrition feeds your health and wellbeing.**

1

Understand the macronutrients

Protein, fats and carbohydrates are the essential components of your diet. They provide energy and ensure your body's structure and system function. A healthy diet shouldn't restrict or exclude any macros.

2

Get your micronutrients

Including micronutrient-rich foods in your diet is an easy way to maintain your body's health. Examples include egg yolks for vitamin D; milk for vitamin B12; green leafy vegetables such as curly kale for calcium; and shellfish for zinc.

4

Cut back on salt and sugar

They might taste delicious but these two can do some terrible things to your health. Reducing your intake, or replacing them with alternatives such as herbs and spices instead of salt, will deliver long-term health benefits.

3

Eat diverse, eat the rainbow

Nutrition guidelines around the world (see WHO recommendations box) point to the importance of eating a wide variety of foods. Including fruit and vegetables from all the colours of the rainbow is a simple way to get a wide range of nutrients including vitamins and minerals.

5

Be active

Regular exercise makes our bodies crave good food. As well as making us seek out the food we need to stay healthy and keep going, exercise also enhances our mood so we want the good stuff.

6

Track it

Whether you want to keep tabs on how many calories you consume, you want to eat more fruit and veg or you need to up your protein levels, food apps are a great way to improve your diet.

WHO healthy diet recommendations⁸²

A healthy diet* for an adult includes the following:

- Fruit, vegetables, legumes, nuts and whole grains
- At least 400g (five portions) of fruit and vegetables a day
- 50g or less of added sugars
- Less than 30% of total energy from fats (including less than 10% saturated fats and less than 1% trans-fats)
- Less than 5g of salt

*Based on a person of healthy body weight consuming around 2000 calories a day

Conclusion

Around the world, the incidence of serious health conditions such as cardiovascular disease, diabetes and cancer is increasing. As poor lifestyle choices can increase the chances of developing many of these conditions, making the right choices now can help you live a long, healthy, and happy life. Knowledge is power when it comes to our health.

Understanding what the risks are and the steps we can take to avoid them, gives us the power to engage with our lifestyle choices and make long-term improvements to our health and wellness. And you don't need to transform yourself into a world-class athlete or adhere to a strict diet to reap the benefits. Small changes really can make a big difference to your health. Just walking an extra 1,000 steps a day will reduce your risk of dying by 12% – not bad for an investment of just 10 minutes a day.

Making these small changes can have far-reaching effects across all areas of your health too. The way in which the five pillars of health are interlinked means that one small change to a lifestyle habit will also have benefits in the other areas. Eat a healthy diet and you'll have the energy to take your extra steps, leaving you feeling relaxed and ready for a good night's sleep. Have a good circle of friends and you'll feel less stressed and more confident about achieving your exercise goals. The benefits really can be supercharged.

At ReMark, we've developed a range of digital health solutions based around the five pillars of health to help individuals make these lifestyle changes. By offering information, advice, support – and an element of fun and healthy competition – they deliver long-lasting behavioural change that enables long-term health improvements.

Understanding the health risks and the changes you can make to lead a healthy and happy life has never been easier.





Good Life is ReMark's health and wellness platform – and the world's first app that is powered by SCOR's Biological Age Model (BAM). Users are given a biological age based on their health metrics and then start a health and wellness journey to get 'younger'.

By tracking five key health metrics – step count, active calories, sleep, body mass index and resting heart rate – users gain insight into their health and wellness. As well as being able to monitor their own data trends, users also benefit from health information and insight.

Good Life puts the fun into health and fitness. Challenges, tasks and plenty of support and encouragement from friends are inspired by the 5 pillars of health to engage users with their health.





Supporting your health with our digital solutions.

Health bites

Short articles, blogs, infographics and videos to educate, inspire and improve health and wellness knowledge. Improving health literacy leads to behavioural changes that improve health and wellness.

Social features

Adding friends, giving likes and points, and an activity leader board provide the opportunity for social engagement. Sharing the experience with others is motivating and supports successful health transformation.

Task library

Regular health and wellness tasks such as setting a step target or an active calorie goal makes the app fun and create an engaging user experience. This stickiness means users are more likely to come back for more health improvements.

Tracking health habits

Users can monitor their health progress, checking out weekly and monthly insights. Being able to see health trends drives motivation and encourages more engagement.

Breathing exercise

A guided tool teaching users basic breathing exercises and technique. This can cultivate mindfulness, helping users relax, reduce stress and regulate mood and emotions.

This combination promotes long-term and sustainable lifestyle and behaviour changes that deliver improvements in overall health and wellness and, for many users, a younger biological age they will love.



Good Health uses predictive analytics to analyse a user's health and lifestyle data and provide data insights for common chronic conditions.

The tool uses our proprietary AI machine learning algorithm, which is based on more than one million pieces of health data collected over a 12-year period. To ensure meaningful insight, it was rigorously trained and refined for accuracy.

As well as assessing risk, Good Health provides health and lifestyle recommendations. Based on the user's disease predictions and their health and lifestyle data, these provide illness-specific information and advice across key areas including exercise, diet, stress management and sleep.

These recommendations are all backed by published peer-reviewed scientific evidence and aim to educate and empower users to make improvements to their health that will lower their long-term risk of chronic conditions.

Understanding what the future may hold – and how to change it for the better – engages users and delivers sustainable and long-term health improvement.

Learn more about



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