

NCFE Level 2

Certificate in Improving Personal Exercise, Health and Nutrition

EXERCISE

MOTIVATION

HEALTH AND WELL-BEING

LIFESTYLE

DIET AND NUTRITION

TECHNOLOGY AND APPS

Workbook 1

Understand health, well-being and exercise

Section 1: Understand the concepts of health and well-being

In this section, you will learn about health and well-being and the role exercise and nutrition play in maintaining them. You will also explore current guidelines about the amount of physical activity you should do and look at the role technology can play in health and well-being.

To successfully achieve this qualification, you will be expected to develop and complete a four-week personal exercise programme and a supporting nutrition plan. You will begin the exercise programme and nutrition plan on page 58 of this workbook and will return to it throughout the course to make amendments as you develop and build on your knowledge.

Health and well-being

Please read the following as it will help you to answer question 1.

The term 'health' can mean different things to different people, but the World Health Organization (WHO) defines it as "a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity".

Well-being is defined as "the state of being comfortable, healthy or happy", but researchers believe that, in addition to these elements, a person's well-being is also based on how satisfied they are with their life and whether they have a fulfilling sense of purpose.

As a result, the WHO describes mental well-being as a "state in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community". The UK government defines well-being as "a positive physical, social and mental state".

In order to have a sense of well-being, you don't have to feel happy all of the time. It is normal to feel difficult emotions such as sadness, disappointment and failure. It is when these feelings have a lasting effect on you that they start to reduce mental well-being and, in turn, impact on your ability to function.



Section 1: Understand the concepts of health and well-being

The positive effects of exercise and nutrition on health and well-being

Please read the following as it will help you to answer question 2.

A range of factors can have a positive effect on your health and well-being, but two of the most important are exercise and nutrition.

Exercise is defined as any physical activity carried out for the sake of health and fitness, for example:

- walking
- swimming
- yoga
- running
- dancing
- lifting weights

Research has shown connections between physical health outcomes and well-being, which include:

- improved immune system responses
- higher pain tolerance
- increased longevity
- cardiovascular health
- slower disease progression
- reproductive health

Did you know?

The Department of Health commissioned a panel of experts to review evidence on sitting and the recommendation was that an active break should be taken from sitting every 30 minutes.



Section 1: Understand the concepts of health and well-being

Read the information in the following table to learn about other positive effects of exercise on health and well-being.

| Positive effect | Explanation |
|---------------------------------------|---|
| It can help you to lose weight | Exercise, when paired with a balanced, nutritious diet, can help you to lose weight by increasing your metabolic rate, which burns more calories. |
| It can make you feel happier | Exercise has been proven to decrease symptoms of depression and stress and to improve mood. This happens because exercise releases endorphins, which are the body's feel-good hormones. Additionally, because of the distraction it provides, exercise can reduce feelings of anxiety. |
| It gives you strong bones and muscles | As you age, you will lose muscle mass, which can result in injuries or disabilities. Regular exercise maintains muscle mass and strength. The possibility of osteoporosis, known as brittle bones, can also be reduced by exercising. Research shows that high-impact exercise, such as running, actually increases bone density more effectively than non-impact sports like swimming. |
| It makes you less likely to be ill | A primary risk factor for chronic disease is a sedentary lifestyle. Exercise improves cardiovascular fitness and decreases blood pressure. This reduces the possibility of heart disease and early death. |
| It can help you to socialise | Taking part in classes, going to the gym or even meeting a friend for a walk can help you to make connections with other people, which are essential to being human. |
| It gives you more energy | Exercise has been found to have a positive impact on energy levels. In fact, regular exercise can reduce feelings of fatigue and increase energy levels in individuals living with progressive illnesses, such as cancer and multiple sclerosis. |
| It helps your memory | Because exercise increases your heart rate, it increases blood flow and oxygen to your brain, which improves brain function and protects your memory. Researchers have found that exercise increases the size of the part of the brain responsible for memory – the hippocampus. |

Section 1: Understand the concepts of health and well-being

Nutrition

Nutrition refers to the food you eat to fulfil your body's dietary needs, and it plays an essential role in your overall health. You will probably have heard the term 'balanced diet' and possibly the advice that it should be combined with regular physical activity. This is because balanced nutrition and exercise are considered by many, including doctors and the WHO, to be the cornerstones of good health.

Eating well can improve your overall health. Conversely, poor nutrition can have a range of negative effects on your physical and mental health, including:

- increased susceptibility to disease
- impaired mental development
- reduced immunity
- impaired physical development

A healthy diet includes:

- fruits
- vegetables
- legumes, e.g. lentils and beans
- nuts and whole grains
- five portions of fruits and vegetables a day
- low sugar intake, e.g. 50g per day for an individual who consumes 2000 calories
- low unsaturated fat intake
- less than 5g of salt per day



Section 1: Understand the concepts of health and well-being

Read the information in the following table to learn about the positive effects of nutrition on health and well-being.

| Positive effect | Explanation |
|------------------------------------|---|
| You will get ill less frequently | The vitamins and minerals you get from good nutrition boost your immunity and healthy development, making you less susceptible to falling ill. |
| You will get fewer diseases | Good nutrition can help protect you against certain diseases, including: <ul style="list-style-type: none">■ obesity■ diabetes■ skeletal conditions■ some cancers A diet rich in calcium will also help to keep your bones and teeth strong. |
| You will maintain a healthy weight | By reducing your fat and sugar intake, you will find it easier to reach your ideal weight and maintain it. |
| You will feel happier | Carbohydrates are known to boost serotonin, which is a chemical that improves mood. |
| Your heart will be stronger | Foods that are high in salt, fat and cholesterol, such as fried foods and red meat, increase your risk of developing heart problems. A diet that contains vegetables, fruits, low-fat products and grains will help protect your heart and keep it strong. |
| You will have more energy | Fatty, sugary and refined foods make your blood sugar unstable. Eating healthily allows your body to maintain a steady blood sugar level, which will help you feel energised throughout the day. |

Did you know?

The NHS calls exercise “the miracle cure we’ve always had, but for too long [...] neglected to take”. Exercise can reduce the risk of major illnesses, including heart disease, stroke, cancer and type 2 diabetes, by up to 50%. It can also reduce your risk of early death by up to 30%. (Source: www.nhs.uk/Livewell)

Section 1: Understand the concepts of health and well-being

The connection between physical health and mental well-being

Please read the following as it will help you to answer question 3.

Health and well-being are two words that are often used together in the same sentence because the relationship between them is two-way health influences well-being and well-being influences health. Research has shown that well-being has the same effect on health as a healthy diet.

Exercise has been shown to have a positive impact on mental well-being in part due to endorphins – so-called ‘feel good’ chemicals that are released during exercise. According to the Mental Health Foundation, any exercise, whether vigorous or gentle, can significantly improve a person’s quality of life. For example, 10 minutes of brisk walking can increase mental alertness, energy and positive mood.

Researchers have found that people who regularly take part in exercise have higher levels of interest, enthusiasm, excitement and alertness compared to people who exercise less regularly or not at all. Additionally, people with a sense of well-being look after themselves physically and are more motivated to exercise.

Regular participation in physical activity can have the following impact on mental well-being:

- stress reduction
- anxiety reduction
- increased self-esteem
- improved quality of life
- increased energised feelings
- reduced mental health problems

Did you know?

According to the Mental Health Foundation, depression has been linked to a 67% increased risk of death from heart disease and a 50% increased risk of death from cancer. Researchers think the reason for these percentages is that people with mental health conditions are less likely to receive the physical care they need. (Source: <https://www.mentalhealth.org.uk/a-to-z/p/physical-health-and-mental-health>)



PERSONAL FITNESS

ENERGY REQUIREMENTS

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