

CC-302 CONCEPTS OF WELLNESS MANAGEMENT

Unit-1 WELLNESS

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References:

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Unit-1 WELLNESS

Definition and scope of wellness- Wellness continuum and health - Dimensions of wellness - Physical Wellness - Emotional Wellness - Social Wellness - Spiritual wellness - Intellectual wellness and Environmental wellness.

Wellness

Wellness = Optimal health and vitality

Wellness: A state of being that enables you to reach your fullest potential. It includes your intellectual, social, emotional, physical, and spiritual health. Wellness has to do with feeling good about yourself and with having goals and purposes in life. Wellness is more likely to be present in individuals who assume more responsibility for their own health. So illness is the “negative” component of health that we want to treat or prevent, and wellness is the “positive” component of health that we want to promote.

Wellness is an active process becoming aware of and making choices towards a healthy and fulfilling life.



Dimensions of Wellness:

- ❖ Physical wellness
- ❖ Nutritional wellness
- ❖ Emotional wellness
- ❖ Intellectual wellness
- ❖ Spiritual wellness
- ❖ Interpersonal and social wellness
- ❖ Environmental, or planetary wellness

Behaviours that contribute to Wellness:

- Be physically active
- Choose a healthy diet
- Maintain a healthy body weight
- Manage stress effectively
- Avoid tobacco and drug use and limit alcohol consumption
- Protect yourself from disease and injury.

Seven dimensions of wellness

Wellness is much more than merely physical health, exercise or nutrition. It is the full integration of states of physical, mental, and spiritual well-being. The model used by our campus includes social,

emotional, spiritual, environmental, occupational, intellectual and physical wellness. Each of these seven dimensions act and interact in a way that contributes to our own quality of life.



- Social Wellness is the ability to relate to and connect with other people in our world. Our ability to establish and maintain positive relationships with family, friends and co-workers contributes to our Social Wellness.



- Emotional Wellness is the ability to understand ourselves and cope with the challenges life can bring. The ability to acknowledge and share feelings of anger, fear, sadness or stress; hope, love, joy and happiness in a productive manner contributes to our Emotional Wellness.



- Spiritual Wellness is the ability to establish peace and harmony in our lives. The ability to develop congruency between values and actions and to realize a common purpose that binds creation together contributes to our Spiritual Wellness.



- Environmental Wellness is the ability to recognize our own responsibility for the quality of the air, the water and the land that surrounds us. The ability to make a positive impact on the quality of our environment, be it our homes, our communities or our planet contributes to our Environmental Wellness.



- Occupational Wellness is the ability to get personal fulfillment from our jobs or our chosen career fields while still maintaining balance in our lives. Our desire to contribute in our careers to make a positive impact on the organizations we work in and to society as a whole leads to Occupational Wellness.



- Intellectual Wellness is the ability to open our minds to new ideas and experiences that can be applied to personal decisions, group interaction and community betterment. The desire to learn new concepts, improve skills and seek challenges in pursuit of lifelong learning contributes to our Intellectual Wellness.



- Physical Wellness is the ability to maintain a healthy quality of life that allows us to get through our daily activities without undue fatigue or physical stress. The ability to recognize that our behaviors have a significant impact on our wellness and adopting healthful habits (routine check ups, a balanced diet, exercise, etc.) while avoiding destructive habits (tobacco, drugs, alcohol, etc.) will lead to optimal Physical Wellness.



Wellness Revolution:

After the initial fitness boom swept across the world in the 1970s, it became clear that improving physical fitness alone was not always enough to lower the risk for disease and ensure better health.

Good health no longer is viewed as simply the absence of disease. The notion of good health has evolved notably in the last few years and continues to change as scientists learn more about life style factors that bring on illness and affect wellness. Once the idea took hold that fitness by itself would not necessarily decrease the risk for disease and ensure better health. The wellness concept developed in the 1980s.

Wellness is an all-inclusive umbrella covering a variety of health related factors. A wellness life style requires the implementation of positive programs to change behavior and thereby improve health and quality of life, prolong life, and achieve total wellbeing. To enjoy a wellness life style, a person has to practice behaviors that will lead to positive outcomes in seven dimensions of wellness. Physical, emotional, intellectual, social, environmental, spiritual and occupational. These dimensions are inter related one frequently affects the others.

For a wellness way of life, individuals must be physically fit and manifest no signs of disease, and they also must avoid all risk factors for disease (such as physical inactivity, hyper-tensions, abnormal cholesterol levels, cigarette smoking, excessive stress, faulty nutrition or careless sex). Even though an individual tested in fitness centre might demonstrate adequate or even excellent fitness, indulgence in unhealthy life style behaviour will increase the risk for chronic diseases and decrease the person's wellbeing.

A Wellness life style:

A wellness is the constant and deliberate effort to stay healthy and achieve the highest potential for well being. Ten simple life style habits can increase longevity significantly.

- ❖ Be physically active (including exercise)
- ❖ Do not use tobacco
- ❖ Eat a healthy diet
- ❖ Maintain recommended body weight
- ❖ Sleep 7 to 8 hours each night
- ❖ Decrease your stress level
- ❖ Drink alcohol moderately or not at all
- ❖ Surround yourself with healthy relationships
- ❖ Be informed about the environment and avoid environmental risk factors
- ❖ Take personal safety measures

Unit-2 Exercise and Wellness

Physical wellness, exercise and functional physical health of different systems of human body, lifestyle diseases in relation to inactivity, Nutrition and exercise to physical wellness.

Definition of Physical Wellness

Physical wellness promotes proper care of our bodies for optimal health and functioning. There are many elements of physical wellness that all must be cared for together. Overall physical wellness encourages the balance of physical activity, nutrition and mental well-being to keep your body in top condition. Obtaining an optimal level of physical wellness allows you to nurture personal responsibility for your own health. As you become conscious of your physical health, you are able to identify elements you are successful in as well as elements you would like to improve.

Why is Physical Wellness Important?

Physical Wellness encourages us to care for our bodies through physical activity, proper nutrition, and a strong mind.

Physical Activity

Being physically active is crucial to keeping your body in its top condition. A few proven benefits of physical activity are strengthened bones and muscles, reduced risk of disease and stroke, and more energy. Learn more about physical activity.

Nutrition

It is important to nurture your body by eating a well-balanced diet. Filling yourself with a variety of nutrients and vitamins will not only help prevent illness, but will also keep your body functioning at its best. Find healthy eating resources on campus.

Mental Well-Being

Having optimal levels of physical activity and maintaining proper nutrition is key to improving your overall emotional wellness. Not only will you sharpen your thinking and learning abilities, you will also enhance your sense of self-esteem and self-control.

The Route to Physical Wellness

Understanding the relationship between your body's physical health and mental health is crucial in order to develop a balanced physical wellness. When you take the route to physical wellness you will learn to understand how your body performs physically and be able to connect it to how you feel mentally. Physical wellness encourages principles of good health and knowledge, which affect behavior patterns that lead to a healthy lifestyle. Below are a few suggestions for you to practice to maintain an optimal level of physical wellness.

- Engage in physical activity everyday for 30 minutes. You may break up your daily 30 minutes into 10 minutes bouts.
- Use stairs instead of the elevator or escalator and walk whenever possible.
- Learn to recognize warning signs when your body begins feeling ill.
- Eat a variety of healthy foods and control your meal portions.
- Maintain a regular sleep schedule and get between 7-9 hours of sleep each night.
- Practice safe sex.

Physical Wellness Resources

Are you interested in enhancing your physical wellness? Because there are various elements to maintaining physical wellness, it is important to learn how to balance these elements. Below is a list of resources available to you both here at UC Davis and at other outside organizations.

Exercise and functional physical health of different systems of human body

Understanding how the normal functions within your body's systems are largely dependent on and supported by MOVEMENT (exercise) is extremely important.

One of the things that intrigued me the most when I began my fitness journey was how much of an impact an active lifestyle can have on so many conditions.

It fascinates me how complex the human body is... how self-healing, self-repairing, self-restoring it is with basic things like nutrition, hydration, movement/exercise, and sleep/rest.

When you achieve a proper balance in your food, activity, and sleep cycle, your body can function more efficiently and you feel more energized as well as experiencing noticeable mood improvements!

The Digestive System

Breaks down food into protein, vitamins, minerals, carbohydrates, and fats, which the body needs for energy, growth, and repair. The excess food that the body doesn't need or can't digest is turned into waste and is eliminated from the body through excretory functions. This is the system you should think about every time you sit down to eat something. Consider HOW what you are putting into your body is handled by your body. Is it fueling you or is it slowing you down, clogging up your arteries, and making you sluggish? Don't put waste in your mouth! We already know how important our regular, everyday diet is to our health and we know how much a bad diet can negatively impact our health, but if you're like me you may not truly understand all the benefits of ACTIVITY and how heavily your body relies on consistent exercise to function normally! Exercise helps to regulate your digestive processes by getting your intestinal muscles working through moving contents more efficiently through the colon.

{REMEMBER: You should never exercise on a full stomach especially if you intend to train hard! Eat a healthy meal at least a couple of hours prior to your workout or your exercise routine could actually have *negative* effects on digestion!}

The Endocrine System

...is made up of a group of glands (*pituitary gland, thyroid gland, parathyroid glands, adrenal glands, thymus gland, pineal body, pancreas, ovaries, and testes*) that produce the body's hormones which control things like metabolism, growth, and sexual development. Those glands release hormones into the blood and the blood transports the hormones to organs and tissues. The following is an excerpt of information paraphrased from an article I found on *LiveStrong.com*:

Exercise boosts the number of hormones circulating in your body and strengthens receptor sites on target organ cells. Your endocrine response to exercise can improve organ function, physical appearance and your state of mind. Vigorous exercise, in particular, might improve endocrine function. Exercise that involves intense bursts of energy stimulates the release of thyroxine from your thyroid gland and can help control or reduce your weight by speeding up your metabolism. Insulin regulates blood sugar by transporting it to muscles and tissues that use glucose for energy. Excessive insulin in your blood reduces your sensitivity to insulin and can lead to diabetes. More glucose stays in the blood when insulin sensitivity goes down — exercise increases insulin sensitivity by reducing blood concentrations of insulin. Blood insulin levels begin decreasing after 10 minutes of aerobic exercise.

Blood flow increases for up to 5 hours after exercise, delivering more oxygen-rich blood to the muscles in your body and building the strength of your heart. {*According to About.com's Sports Medicine section, increased blood flow circulates immune cells through the body more quickly, killing bacteria and viruses and resulting in fewer illnesses!*} Exercise-induced testosterone can increase confidence and libido. Low testosterone levels inhibit motivation, self-confidence, concentration and memory. Your pituitary gland potentially produces a five-fold increase in blood endorphin levels after 30

minutes of exercise. Endorphins block your sensitivity to pain, and can reduce tension or anxiety by inducing a sense of euphoria.

The Immune System

...is our body's defense system against infections and diseases. Organs, tissues, cells, and cell products work together to respond to viruses or bacteria and substances that may enter the body from the environment. There are three types of response systems in the immune system: the anatomic response, the inflammatory response, and the immune response. Regular exercise has immense benefits on all of these immune system responses. After exercise ends, the immune system generally returns to normal within a few hours, but consistent, regular exercise seems to make physiological changes that boost the immune system last longer and helps your body to fight illness and disease more efficiently. KEEP IN MIND, however, that just the same as regular exercise BOOSTS your immune system, not allowing your body enough REST will totally counteract those benefits so be sure that you're striking the proper balance.

The Lymphatic System

...is also a defense system for the body. It filters out organisms that cause disease, produces white blood cells, and generates disease-fighting antibodies. It also distributes fluids and nutrients in the body and drains excess fluids and protein so that tissues do not swell. The lymphatic system is made up of a network of vessels that help circulate body fluids. These vessels carry excess fluid away from the spaces between tissues and organs and return it to the bloodstream. The most common way skeletal muscle is expanded and contracted to promote the processes of the lymphatic system is through natural body movement — EXERCISE. (Read this article from *Benefits of Honey!*) Muscle contraction promotes the flow of lymph to various lymph nodes throughout the body. Lymph flow increases by approximately 2- to 3-fold while exercising.

The Muscular System

...is made up of tissues that work with the skeletal system to control movement of the body. Some are voluntary and some are involuntary... They are divided into skeletal muscle, smooth muscle, and cardiac muscle. All muscle in the body has the capacity to expand and contract — some muscles help you move while others support the regulation of organ processes, excretion, lung function, and the pumping of blood by the heart. Exercise benefits all of these muscles in different ways and improves the function of your organs as well as increasing your body's endurance and strength which can protect your body from degeneration and injury as you age.

The Respiratory System

...brings air into the body and removes carbon dioxide. When you breathe into the lungs, oxygen is passed into the blood stream. At the same time, carbon dioxide passes into the lungs and is exhaled. When you exercise, muscle cells use more oxygen and produce more carbon dioxide which makes the lungs work harder perform its function. This is why breathing becomes faster and the heart rate increases — so that oxygen is delivered more quickly throughout the body. As a result, over time the lung function becomes more efficient as the diaphragm other respiratory muscles get stronger. Over time, this process of providing oxygen and removing carbon dioxide becomes easier for the body and will occur more quickly. You will find that the stronger the respiratory system becomes, the longer intense activity can be sustained. NOTE: When exercising, it is always best to breathe IN through the nose and OUT through the mouth. Lung capacity is increased by deep breathing with slow exhale.

The Skeletal System

...is made up of bones, ligaments and tendons. It shapes the body and protects organs. The skeletal system works with the muscular system to help the body move. Exercise is ESSENTIAL to keep our

bones healthy since they have almost no blood supply. Movement is what keeps the cartilage surrounding bones from drying out by assisting joints in producing synovial fluid. The production of this substance (which is similar to how oil lubricates an engine) is a direct physical response to exercise. When your joints do not experience regular activity (consistent exercise) they can lose range of motion due to repetitive drying out. (This is why when your joints become stiff, often just rotating the joint helps ease the discomfort — you're producing small amounts of synovial fluid to temporarily lubricate the joint.

Exercise encourages the production of *new bone* making our bones stronger and denser which can prevent osteoporosis and fractures as we age. Studies have shown conclusively that people who are active throughout their lives are much less likely to develop conditions like arthritis.

Lifestyle diseases in relation to inactivity

Most people know physical activity, such as regular exercise, is important for weight loss and optimal health. What some people do not realize is being physically inactive is considered a risk factor for several illnesses and medical conditions. According to the World Health Organization (WHO), about 2 million people worldwide die from conditions related to physical inactivity. People of all ages, from children to the elderly, can suffer negative consequences if they live a sedentary lifestyle and are physically inactive. Below are 8 negative effects of physical inactivity.

1. Increased Chance of Developing Hypertension

Hypertension, which is also known as high blood pressure, is one of the main risk factors for having serious medical conditions develop, such as a stroke or kidney disease. Blood pressure measures how forceful blood is pushed against the artery walls. Physical activity, such as regular exercise, helps make the heart stronger. As the heart becomes stronger, it can pump blood more efficiently throughout the body. When the heart does not have to work as hard, less force is put on the arteries and blood pressure is lower.

2. Risk of Developing Heart Disease Increases

Physical inactivity can contribute to heart disease in a few ways. The efficiency of coronary blood flow is impaired in people who are physically inactive. Another link between inactivity and heart disease is cholesterol levels. One of the main factors that contributes to heart disease is high cholesterol. The chances of developing high cholesterol increase in those who are physically inactive. Exercise helps lower LDL cholesterol levels. Being physically active can also increase levels of HDL cholesterol, which is good cholesterol that helps protect against heart disease.

3. Osteoporosis is more likely to Occur

The phrase “use it or lose it” really does apply when referring to the bones in the body. Without proper physical activity, overtime the bones can become weak. When this occurs, the condition is known as osteoporosis, which can cause the bones to fracture easily. The condition occurs most frequently in older adults. Physical activity helps strengthen the bones and prevent osteoporosis from developing.

4. Colon and Breast Cancer Risk Increases

Physical inactivity contributes to the risk of colon cancer in a few ways. Waste moves through the colon slower in people who are sedentary. This increases the time the waste spends in the colon, which may allow the colon to be exposed to possible carcinogens for a longer period of time. Physical activity helps keep things moving through the colon faster. Breast cancer may also occur more often in women who are inactive. According to the National Cancer Institute, hormone levels may be lowered with regular exercise, which can decrease the chance of breast tumors developing.

5. Doubles the Risk of Obesity

When an individual has a body mass index over 30 he or she is considered obese. According to the WHO, people who are physically inactive have twice the risk of developing obesity. Obesity is a major health concern for people of all ages including children. Illnesses related to obesity include heart disease, hypertension, diabetes and sleep apnea. In the United States each year there are over 300,000 deaths related to obesity.

6. Increased Chance of Gallstone Formation

Gallstones are hard deposits of bile, which form in the gallbladder. Gallstones can cause symptoms such as abdominal pain, fever and nausea. Negative effects of physical inactivity, such as increased time for waste to go through the colon along with higher triglycerides can both increase the chance of developing gallstones.

7. Adult Onset Diabetes is more likely to Develop

Type 2 diabetes, also known as adult onset diabetes, occurs when insufficient levels of insulin are produced, or resistance to insulin develops. Two risk factors for developing adult onset diabetes include being overweight and physical inactivity. Complications of diabetes include kidney disease and heart disease, eye problems and nerve damage.

8. Higher Chance of Developing Depression and Anxiety

Along with physical problems related to inactivity, negative emotional effects can also develop. According to the WHO people who are sedentary are more likely to develop anxiety and depression. Exercise helps reduce or prevent anxiety and depression in several ways. When a person is physically active, chemicals are released in the brain which helps improve mood and reduce stress. Unlike other risk factors for diseases, such as age and gender, physical inactivity can be changed. Making lifestyle changes and incorporating daily physical activity, such as increasing walking and taking the stairs is a start. Adding regular exercise on most days of the week is optimal. The Centers for Disease Control and Prevention recommends 150 minutes of cardiovascular exercise a week and doing strength building exercise two days a week. The good news is, in time the negative effects of physical inactivity may be reversed or decreased.

Nutrition and exercise to physical wellness

Eating a balanced diet and being physically active are two of the most important things you can do to be and stay healthy at any age.

A balanced diet includes eating the right amount of calories and nutrients to maintain a healthy weight. Physical activity is any form of movement that uses energy. People of all shapes and sizes and abilities can benefit from being physically active. Some physical activity is better than none and the more you do the more benefits you gain. Eating smart and being active have similar effects on our health. These include:

- Reduce the risk of chronic diseases, such as diabetes, heart disease, high blood pressure, stroke, and some cancers and associated disabilities
- Prevent weight gain and/or promote weight loss
- Improve overall well-being

Being active can also improve your personal appearance, encourage fun with family and friends, maintain the ability to live independently, and enhance fitness for sports.

In addition to the health benefits listed above, moderate exercise, like brisk walking, can have other health benefits such as:

- Improves blood circulation, which reduces the risk of heart disease
- Keeps weight under control
- Helps in the battle to quit smoking
- Improves blood cholesterol levels
- Prevents and manages high blood pressure
- Prevents bone loss
- Boosts energy level
- Helps manage stress
- Releases tension
- Promotes enthusiasm and optimism
- Counters anxiety and depression
- Helps you fall asleep faster and sleep more soundly
- Improves self-image
- Increases muscle strength, increasing the ability to do other physical activities
- Provides a way to share an activity with family and friends
- Reduces risk of developing CHD/CVD by 30-40 percent
- Reduced risk of stroke by 20 percent in moderately active people and by 27 percent in those who are highly active
- Establishes good heart-healthy habits in children and counters the conditions (obesity, high blood pressure, poor cholesterol levels, poor lifestyle habits, etc.) that lead to heart attack and stroke later in life
- Helps delay or prevent chronic illnesses and diseases associated with aging and maintains quality of life and independence longer for seniors

Unit-3
STRESS MANAGEMENT

Stress : Definition of Stress, Stress and Emotional health, Stress and physical health- Mechanism of stress and related degenerative diseases- Inter dependence of Spiritual wellness, Social wellness and Emotional wellness- Stress management techniques.

Stress has become one of the most common problems we face. Learning to live and get ahead today is not possible without stress. To succeed in an unpredictable world that changes with every new day, working under pressure has become the rule rather than the exception for most people. Estimates indicate that the annual cost of stress and stress-related diseases in the Indian \$100 billion—a direct result of health-care cost, lost productivity and absenteeism.

Stress is a fact of modern life. Every person has an optimal level of stress that is most conducive to adequate health and performance. When stress levels reach mental, emotional, and physiological limits, however, stress becomes distress and the person no longer functions effectively.

Definition of stress

- A state of mental tension and worry caused by problems in your life, work, etc.
- something that causes strong feelings of worry or anxiety
- physical force or pressure

What is good emotional health?

People who have good emotional health are aware of their thoughts, feelings, and behaviors. They have learned healthy ways to cope with the stress and problems that are a normal part of life. They feel good about themselves and have healthy relationships.

However, many things that happen in your life can disrupt your emotional health and lead to strong feelings of sadness, stress, or anxiety. These things include:

- Being laid off from your job
- Having a child leave or return home
- Dealing with the death of a loved one
- Getting divorced or married
- Suffering an illness or an injury
- Getting a job promotion
- Experiencing money problems
- Moving to a new home
- Having a baby

Good changes can be just as stressful as bad changes.

How can my emotions affect my health?

Your body responds to the way you think, feel, and act. This is one type of “mind/body connection.” When you are stressed, anxious, or upset, your body reacts in a way that might tell you that something isn’t right. For example, high blood pressure or a stomach ulcer might develop after a particularly stressful event, such as the death of a loved one. The following can be physical signs that your emotional health is out of balance:

- Back pain
- Change in appetite

- Chest pain
- Constipation or diarrhea
- Dry mouth
- Extreme tiredness
- General aches and pains
- Headaches
- High blood pressure
- Insomnia (trouble sleeping)
- Light-headedness
- Palpitations (the feeling that your heart is racing)
- Sexual problems
- Shortness of breath
- Stiff neck
- Sweating
- Upset stomach
- Weight gain or loss

Poor emotional health can weaken your body's immune system, making you more likely to get colds and other infections during emotionally difficult times. Also, when you are feeling stressed, anxious, or upset, you may not take care of your health as well as you should. You may not feel like exercising, eating nutritious foods or taking medicine that your doctor prescribes. Abuse of alcohol, tobacco, or other drugs may also be a sign of poor emotional health.

What is the relationship between stress and physical health

This is an interesting question and one that has not been fully answered. Illness of any kind disrupts routines and interferes with day-to-day functions, all of which stresses an individual.

A person's response to the stress of physical illness varies tremendously and in large part depends on his or her own personality style and social supports. It is known, for example, that certain diseases such as diabetes, rheumatoid arthritis, peptic ulcer disease, or cardiac disease can worsen with mental stress. While it is not clear that stress causes these diseases, it is clear that these and probably many other illnesses are influenced by stress.

Newer information supports the idea that not only does physical illness cause stress, but stress may bring on or worsen certain symptoms or diseases. When a person is scared (as in the example of the confrontation in the dark alley) his or her blood pressure and pulse increase. Many people experience diarrhea when confronted with the stress of an important test or presentation. Stress can also lead to common symptoms like headache, chest pain, or backache.

Failure to recognize the important role

Mechanism of stress

Environmental events, both physical and emotional, can produce stress reactions to widely varying degrees. Stress can affect many aspects of physiology, and levels of stress, emotional status, and means of coping with stress can influence health and disease. The stress system consists of brain elements, of which the main components are the corticotropin-releasing hormone (CRH) and locus ceruleus (LC)-norepinephrine (NE)/autonomic systems, as well as their peripheral effectors, the pituitary-adrenal axis and the autonomic system, which function to coordinate the stress response. Activation of the stress system results in behavioral and physical changes which allow the organism to adapt. This system is closely integrated with other central nervous system elements involved in the regulation of behavior and emotion, in addition to the axes responsible for reproduction, growth and immunity. With current trends in stress research which focus on understanding the mechanisms through which the stress-response is adaptive or becomes maladaptive, there is a growing association of stress system dysfunction, characterized by hyperactivity and/or hypoactivity to various pathophysiological states.

Related degenerative diseases

Many of us know from experience that stress compromises the immune response, an empirical observation buttressed by our understanding of cortisol's physiological effects. Indeed, the effects of acute and chronic stress on human health are myriad and severe. During periods of increased stress, "the immune cells are being bathed in molecules which are essentially telling them to stop fighting," according to Dr. Esther Sternberg . These molecules, namely cortisol, suppress the immune system and inflammatory pathways, rendering the body more susceptible to disease.

High levels of stress, even over relatively short periods and in vastly different contexts, tend to produce similar results: prolonged healing times, reduction in ability to cope with vaccinations, and heightened vulnerability to viral infection (. The long-term, constant cortisol exposure associated with chronic stress produces further symptoms, including impaired cognition, decreased thyroid function, and accumulation of abdominal fat, which itself has implications for cardiovascular health. The bottom line is that both episodes of acute stress and more prolonged stressful circumstances precipitate lower levels of general health, and exposure to such stress should be minimized. In the most extreme cases, Cushing's Syndrome, characterized by dangerously high cortisol levels, can result. Those afflicted with Cushing's experience rapid weight gain, hyperhidrosis, and hypercalcemia, along with various psychological and endocrine problems and Neurodegenerative diseases

Inter dependence of Spiritual wellness

The **interdependent** model provides the cursory categories from which the National **Wellness** Institute derives its products and services. The categories are social, occupational, spiritual, physical, intellectual, and emotional. The social dimension encourages contributing to one's environment and community.

Social Wellness

Social Wellness is very important to our overall health. A person who is socially healthy has the skills to socialize, be confident and function in all situations that involve other people. A person lacking social wellness tends to lack the ability to adjust to social situations. One of the greatest things that you can do for yourself and others is to become a contributing member of your community. This means getting out and joining in many different activities including volunteering. Yolo County has many non-profits that can use your assistance. A good place to look for volunteer work would be through your church, by asking friends, reading your local newspaper and searching on the internet is a great place to look when trying to find the right volunteer opportunity. Going through the day having positive interactions with other people will provide you with a great deal of social wellness. So go out into your community and make a difference!

Nobody attains perfection in his life, mainly because life is a process and will continue to evolve. However, people can perceive perfection in terms of satisfaction and happiness. To create social wellness, here are some of the most important steps you can take:

- **Know your needs**—we all have unique needs. What someone might find important may seem irrelevant to you and vice versa. Learn to identify what your needs are so you don't feel the pressure to perform in an environment you don't enjoy or care about.
- **Reach out**—offering friendship to people is a first step to social wellness. Without this initiative, it will be difficult for you to take advantage of potentially productive relationships. Consider joining groups and clubs that focus on your interests. Explore other avenues that may present certain possibilities for you, such as volunteer work and travel.
- **Choose your relationships**—some relationships take a toll on people. Sometimes, it could come from experiences with an abusive partner, an overbearing relative or an insincere friend. The problem here is that all of these can cause unnecessary strain on your emotional state and affect your ability to function socially.
- **Learn to build and stay in healthy relationships**—these relationships involve people you care about and who care about you and your well-being. Generally, these are people whom you feel can nurture and support your needs and whose needs you yourself can offer support for. Since there is trust and compassion, you feel safe and satisfied, two vital ingredients for social wellness.
- **Don't feel the pressure to conform**—this is a rather tricky step because often, conformity is required in the society we live in. However, cooperating with standards and mores doesn't necessarily mean changing yourself and becoming a person you are not. Everybody's different and it's our job to accept that. If you try to conform, you'll find that the pressure to change yourself will affect you in many ways, all of them negative.
- **Learn to communicate effectively**—you can only do so much about hiding your feeling and thoughts. Being able to communicate well is a vital component of social wellness because this is generally how you initiate relationships in the first place.

Make it a practice to constantly work on your social connections and soon you will have an abundance of what we call "social wellness."

Emotional Wellness

Emotional Wellness includes the ability to experience, manage, and express appropriately our emotional life. It means we are aware of our feelings as they pass through us fluidly and dynamically, whatever they are, and have a capacity for work, play and love. Emotional wellness involves a recognition and acceptance of our physical and emotional selves, including our strengths and limitations.

Emotional Wellness is:

- important to our physical, intellectual, spiritual and social lives
- self-awareness, self-acceptance and self-confidence
- having the ability to share our feelings with others
- recognizing our problems and finding solutions
- having the ability to share our feelings with others, recognizing our problems, and finding solutions happens when we get enough sleep, fuel our bodies well, exercise, take care of physical illness, abstain from alcohol and drugs, and have fun!

Stress Management: Ten Ways to Ease Stress

- Eat and drink sensibly
- Assess yourself
- Stop smoking
- Exercise regularly
- Study and practice self-control techniques
- Take responsibility for feelings
- Reduce stressors
- Explicate your values and live by them
- Set realistic goals and expectations
- Sell yourself; have self-esteem

Unit-4 FITNESS AND BODY COMPOSITION

Health fitness components, body composition, muscular endurance, strength, Cardio vascular fitness and flexibility, importance of cardio respiratory endurance .Obesity and health risk factors, childhood obesity and problems. Body composition indicators and measurements

Health fitness components

Components of Health Related Fitness

What does it mean to be physically "fit?" Physical fitness is defined as "a set of attributes that people have or achieve that relates to the ability to perform physical activity". In other words, it is more than being able to run a long distance or lift a lot of weight at the gym. Being fit is not defined only by what kind of activity you do, how long you do it, or at what level of intensity. While these are important measures of fitness, they only address single areas. Overall fitness is made up of five main components:

- Cardio respiratory endurance
- Muscular strength
- Muscular endurance
- Body composition
- Flexibility

In order to assess your level of fitness, look at all five components together.

What is "cardio-respiratory endurance (cardio-respiratory fitness)?"

Cardio-respiratory endurance is the ability of the body's circulatory and respiratory systems to supply fuel during sustained physical activity. To improve your cardio-respiratory endurance, try activities that keep your heart rate elevated at a safe level for a sustained length of time such as walking, swimming, or bicycling. The activity you choose does not have to be strenuous to improve your cardio-respiratory endurance. Start slowly with an activity you enjoy, and gradually work up to a more intense pace.

What is "muscular strength?"

Muscular strength is the ability of the muscle to exert force during an activity. The key to making your muscles stronger is working them against resistance, whether that be from weights or gravity. If you want to gain muscle strength, try exercises such as lifting weights or rapidly taking the stairs.

What is "muscular endurance?"

Muscular endurance is the ability of the muscle to continue to perform without fatigue To improves your muscle endurance, try cardio-respiratory activities such as walking, jogging, bicycling, or dancing.

What is "body composition?"

Body composition refers to the relative amount of muscle, fat, bone, and other vital parts of the body . A person's total body weight (what you see on the bathroom scale) may not change over time. But the bathroom scale does not assess how much of that body weight is fat and how much is lean mass (muscle, bone, tendons, and ligaments). Body composition is important to consider for health and managing your weight!

What is "flexibility?"

Flexibility is the range of motion around a joint . Good flexibility in the joints can help prevent injuries through all stages of life. If you want to improve your flexibility, try activities that lengthen the muscles such as swimming or a basic stretching program.

Definition of cardiovascular endurance

Cardiovascular endurance is the body's ability to deliver oxygen to muscles while they are working. Essentially, it is the heart and lungs delivering energy to a body in motion without undue fatigue, according to the Department of Health and Human Services

Importance of Cardio respiratory Endurance

Cardiovascular endurance is important because it helps to boost the supply of oxygen in the body thus boosting strength. It is measured as the amount of oxygen carried in the blood and pumped by the heart to the active muscles. Increasing cardiovascular fitness means boosting the capability of the heart and the cardiovascular system to supply oxygen and energy.

Having good cardiovascular fitness is essential to the general health of an individual. It helps to reduce the risk of getting certain diseases, including stroke, cardiovascular diseases, diabetes and hypertension. Cardiovascular endurance can be improved by activities that depend on the use of large groups of muscles, such as swimming, running, skating, jogging, cycling and stair climbing.

In sports, cardiovascular fitness is necessary for long-distance activities, such as running, swimming and marathon training. It also helps to boost the stamina of an individual. Poor cardiovascular endurance can make a person breathe heavily, causing him or her to get tired quickly. The energy transported in the body is made from a substance called adenosine triphosphate (ATP). A person can boost his or her cardiovascular endurance by including a plan for it in his or her daily exercise schedule.

Obesity and health risk factors:

Coronary Heart Disease

As your body mass index rises, so does your risk for coronary heart disease (CHD). CHD is a condition in which a waxy substance called plaque (plak) builds up inside the coronary arteries. These arteries supply oxygen-rich blood to your heart.

Plaque can narrow or block the coronary arteries and reduce blood flow to the heart muscle. This can cause angina (an-JI-nuh or AN-juh-nuh) or a heart attack. (Angina is chest pain or discomfort.)

Obesity also can lead to heart failure. This is a serious condition in which your heart can't pump enough blood to meet your body's needs.

High Blood Pressure

Blood pressure is the force of blood pushing against the walls of the arteries as the heart pumps blood. If this pressure rises and stays high over time, it can damage the body in many ways.

Your chances of having high blood pressure are greater if you're overweight or obese.

Stroke

Being overweight or obese can lead to a buildup of plaque in your arteries. Eventually, an area of plaque can rupture, causing a blood clot to form.

If the clot is close to your brain, it can block the flow of blood and oxygen to your brain and cause a stroke. The risk of having a stroke rises as BMI increases.

Type 2 Diabetes

Diabetes is a disease in which the body's blood glucose, or blood sugar, level is too high. Normally, the body breaks down food into glucose and then carries it to cells throughout the body. The cells use a hormone called insulin to turn the glucose into energy.

In type 2 diabetes, the body's cells don't use insulin properly. At first, the body reacts by making more insulin. Over time, however, the body can't make enough insulin to control its blood sugar level.

Diabetes is a leading cause of early death, CHD, stroke, kidney disease, and blindness. Most people who have type 2 diabetes are overweight.

Abnormal Blood Fats

If you're overweight or obese, you're at increased risk of having abnormal levels of blood fats. These include high levels of triglycerides and LDL ("bad") cholesterol and low levels of HDL ("good") cholesterol.

Abnormal levels of these blood fats are a risk factor for CHD. For more information about triglycerides and LDL and HDL cholesterol, go to the Health Topics [High Blood Cholesterol](#) article.

Metabolic Syndrome

Metabolic syndrome is the name for a group of risk factors that raises your risk for heart disease and other health problems, such as diabetes and stroke.

You can develop any one of these risk factors by itself, but they tend to occur together. A diagnosis of metabolic syndrome is made if you have at least three of the following risk factors:

- A large waistline. This is called abdominal obesity or "having an apple shape." Having extra fat in the waist area is a greater risk factor for CHD than having extra fat in other parts of the body, such as on the hips.
- A higher than normal triglyceride level (or you're on medicine to treat high triglycerides).
- A lower than normal HDL cholesterol level (or you're on medicine to treat low HDL cholesterol).
- Higher than normal blood pressure (or you're on medicine to treat high blood pressure).
- Higher than normal fasting blood sugar (or you're on medicine to treat diabetes).

Cancer

Being overweight or obese raises your risk for colon, breast, endometrial, and gallbladder cancers.

Osteoarthritis

Osteoarthritis is a common joint problem of the knees, hips, and lower back. The condition occurs if the tissue that protects the joints wears away. Extra weight can put more pressure and wear on joints, causing pain.

Sleep Apnea

Sleep apnea is a common disorder in which you have one or more pauses in breathing or shallow breaths while you sleep.

A person who has sleep apnea may have more fat stored around the neck. This can narrow the airway, making it hard to breathe.

Obesity Hypoventilation Syndrome

Obesity hypoventilation syndrome (OHS) is a breathing disorder that affects some obese people. In OHS, poor breathing results in too much carbon dioxide (hypoventilation) and too little oxygen in the blood (hypoxemia).

OHS can lead to serious health problems and may even cause death.

Reproductive Problems

Obesity can cause menstrual issues and infertility in women.

Gallstones

Gallstones are hard pieces of stone-like material that form in the gallbladder. They're mostly made of cholesterol. Gallstones can cause stomach or back pain.

People who are overweight or obese are at increased risk of having gallstones. Also, being overweight may result in an enlarged gallbladder that doesn't work well.

Childhood obesity and problems

Doctors and scientists are concerned about the rise of obesity in children and teens because obesity may lead to the following health problems:

- Heart disease
- Type 2 diabetes
- Asthma
- Sleep apnea
- Social discrimination

Obese children may experience immediate health consequences which can lead to weight-related health problems in adulthood. Obese children and teens have been found to have risk factors for cardiovascular disease (CVD), including high cholesterol levels, high blood pressure, and abnormal glucose tolerance. In a sample of 5-to 17-year-olds, almost 60% of overweight children had at least one CVD risk factor and 25% of overweight children had two or more CVD risk factors. In addition, studies have shown that obese children and teens are more likely to become obese as adults.

Body composition indicators and measurements

Tanita monitors bring you fast, accurate body composition results using the latest advanced bioelectrical impedance analysis (BIA) technology developed by Tanita over the last 25 years. This gives you a true indicator of your inner health and, when monitored over time, can show the impact of any fitness regime or weight loss programme.

So find out exactly what you are made of, set your goals and use Tanita to help you achieve your optimal fitness level and improve your health and wellbeing.

Body Fat Percentage and Body Fat Mass

Body Fat Percentage is the proportion of fat to the total body weight. Body Fat Mass is the actual weight of fat in your body.

Body fat is essential for maintaining body temperature, cushioning joints and protecting internal organs.

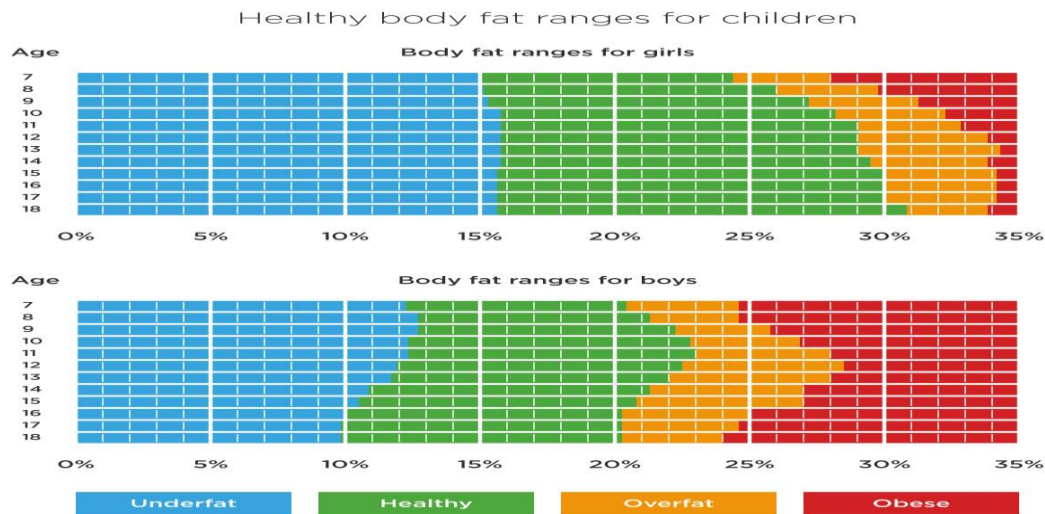
The energy, or calories, our body needs comes from what we eat and drink. Energy is burned through physical activity and general bodily functions. If you consume the same number of calories as you burn, all the calories are converted into energy. But if you consume more than you burn, excess calories are stored in fat cells. If this stored fat is not converted into energy later, it creates excess body fat.

Too much fat can damage your long-term health. Reducing excess levels of body fat has been shown to directly reduce the risk of certain conditions such as high blood pressure, heart disease, type 2 diabetes and certain cancers.

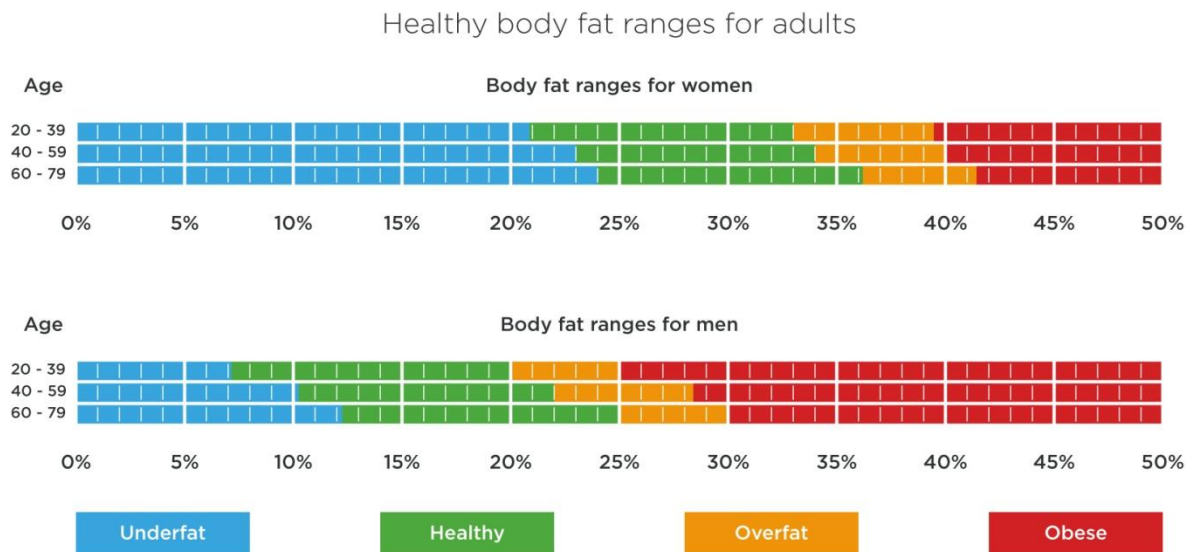
Too little body fat may lead to osteoporosis in later years, irregular periods in women and possible infertility.

It is important to check your body fat results against the Tanita healthy body fat ranges. These measurements are available for everyone from age five to 99 years.

For children's health body fat ranges:



For adult's healthy body fat ranges :

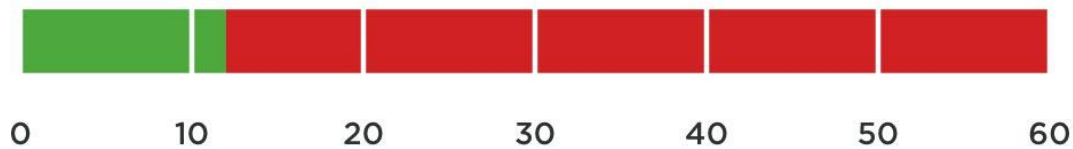


Visceral Fat

Visceral fat is located deep in the core abdominal area, surrounding and protecting the vital organs.

Even if your weight and body fat remains constant, as you get older the distribution of fat changes and is more likely to shift to the abdominal area. Ensuring you have a healthy level of visceral fat directly reduces the risk of certain diseases such as heart disease, high blood pressure and may delay the onset of type 2 diabetes.

Visceral fat ranges



Healthy 1 - 12

Indicates you have a healthy level of visceral fat. Continue monitoring your rating to ensure it stays within the healthy range.

Excessive 12 - 59

Indicates you have an excess level of visceral fat. Consider making changes in your diet and/or increasing the amount of exercise you do.

Muscle Mass

The predicted weight of muscle in your body.

Muscle mass includes the skeletal muscles, smooth muscles such as cardiac and digestive muscles and the water contained in these muscles. Muscles act as an engine in consuming energy.

As your muscle mass increases, the rate at which you burn energy (calories) increases which accelerates your basal metabolic rate (BMR) and helps you reduce excess body fat levels and lose weight in a healthy way.

If you are exercising hard your muscle mass will increase and may increase your total body weight too. That's why it's important to monitor your measurements regularly to see the impact of your training programme on your muscle mass.

Total Body Water

Total Body Water is the total amount of fluid in the body expressed as a percentage of total weight.

Water is an essential part of staying healthy. Over half the body consists of water. It regulates body temperature and helps eliminate waste. You lose water continuously through urine, sweat and breathing, so it's important to keep replacing it.

The amount of fluid needed every day varies from person to person and is affected by climatic conditions and how much physical activity you undertake. Being well hydrated helps concentration levels, sports performance and general wellbeing.

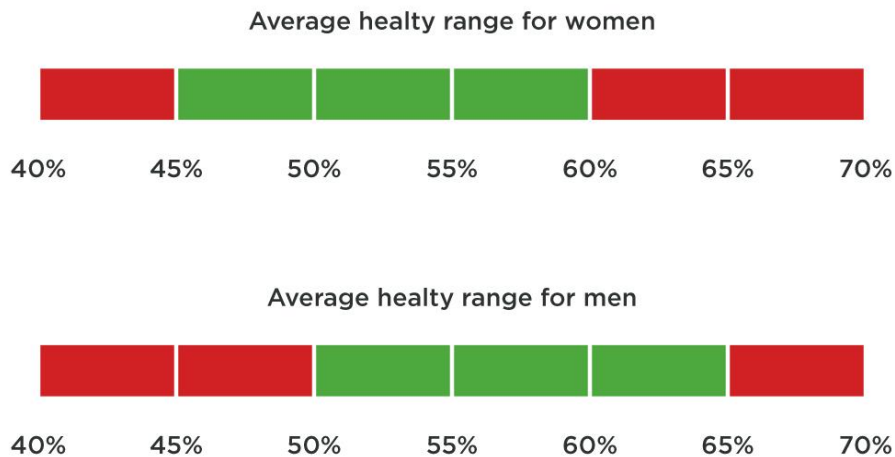
Experts recommend that you should drink at least two liters of fluid each day, preferably water or other low calorie drinks. If you are training, it's important to increase your fluid intake to ensure peak performance at all times.

The average TBW% ranges for a healthy person are:

Female 45 to 60%

Male 50 to 65%

Total Body Water



Bone Mass

The predicted weight of bone mineral in your body.

While your bone mass is unlikely to undergo noticeable changes in the short term, it's important to maintain healthy bones by having a balanced diet rich in calcium and by doing plenty of weight-bearing exercise.

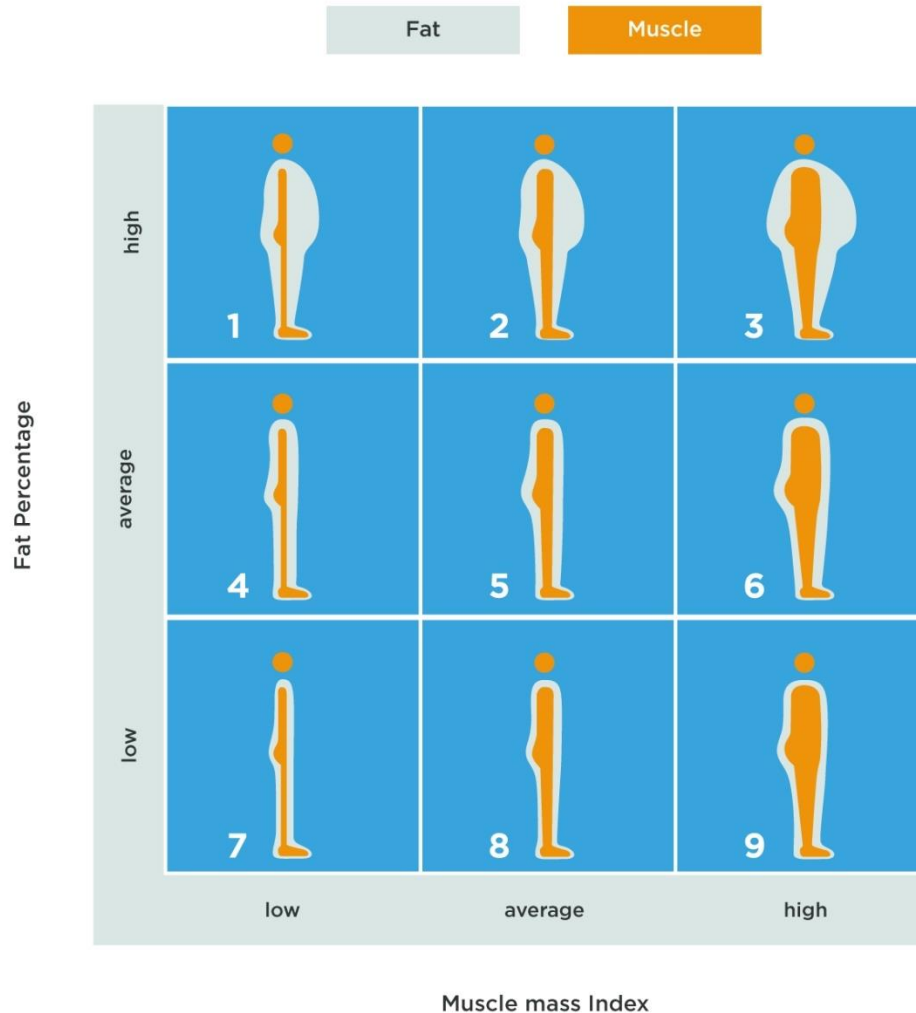
You should track your bone mass over time and look for any long term changes.

Physique Rating

Assesses muscle and body fat levels and rates the result as one of nine body types.

As your activity level changes the balance of body fat and muscle mass will gradually alter, which in turn will affect your overall physique.

Physique rating



Basal Metabolic Rate (BMR)

The daily minimum level of energy or calories your body requires when at rest (including sleeping) in order to function effectively.

Increasing muscle mass will speed up your basal metabolic rate (BMR). A person with a high BMR burns more calories at rest than a person with a low BMR.

About 70% of calories consumed every day are used for your basal metabolism. Increasing your muscle mass helps raise your BMR, which increases the number of calories you burn and helps to decrease body fat levels.

Your BMR measurement can be used as a minimum baseline for a diet programme. Additional calories can be included depending on your activity level. The more active you are the more calories you burn and the more muscle you build, so you need to ensure you consume enough calories to keep your body fit and healthy.

As people age their metabolic rate changes. Basal metabolism rises as a child matures and peaks at around 16 or 17, after which point it typically starts to decrease. A slow BMR will make it harder to lose body fat and overall weight.

Metabolic Age

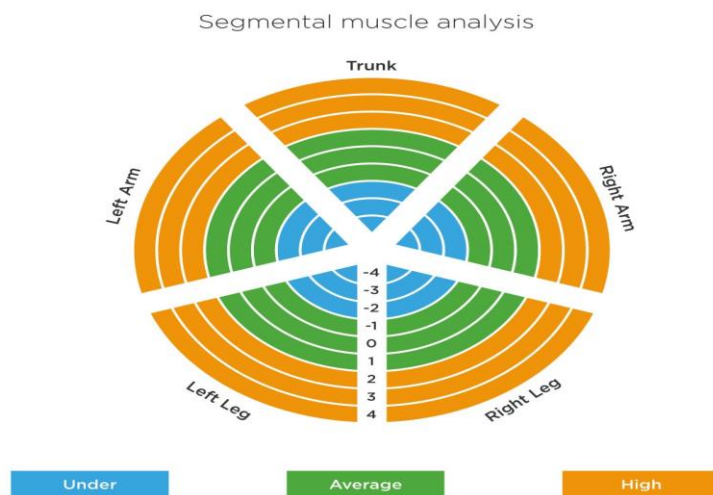
Compares your BMR to an average for your age group.

This is calculated by comparing your basal metabolic rate (BMR) to the BMR average of your chronological age group. If your metabolic age is higher than your actual age, it's an indication that you need to improve your metabolic rate. Increased exercise will build healthy muscle tissue, which in turn will improve your metabolic age. Stay on track by monitoring regularly.

Segmental Muscle Mass

Muscle mass rating for five body segments: the core abdominal area and arm and leg.

Monitoring the muscle mass of each of your arms and legs and core abdominal area will help you see and understand the impact of your training programme over time. You can also use this information to correct muscle imbalances and avoid injury.

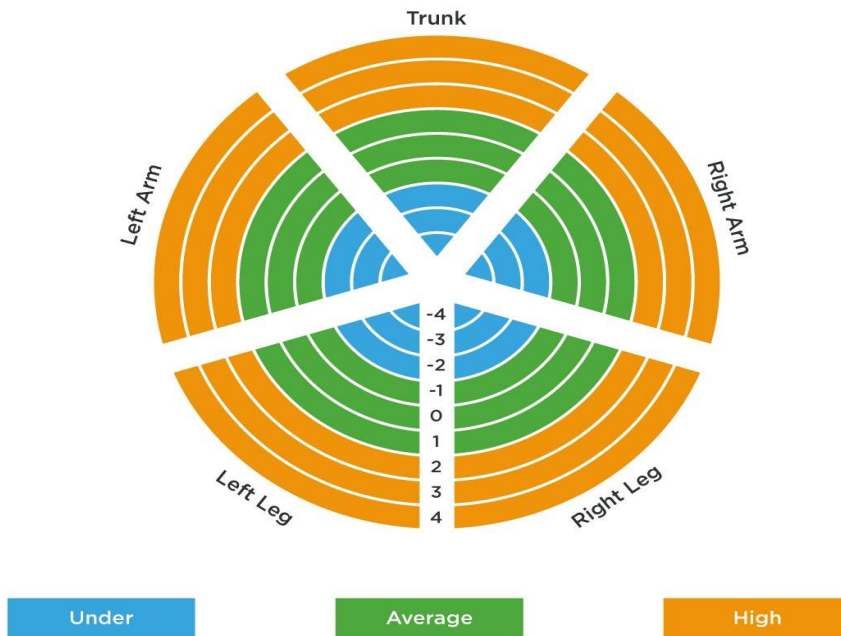


Segmental Body Fat Percentages

Body fat percentages for five body segments: the core abdominal area and each arm and leg.

Monitoring the body fat percentage of each of your arms and legs and core abdominal area will help you see and understand the impact of your training programme over time.

Segmental fat analysis



Body Mass Index

A standardized ratio of weight to height used as a general indicator of health.

Your BMI can be calculated by dividing your weight (in kilograms) by the square of your height (in meters).

BMI is a good general indicator for population studies but has serious limitation when assessing on an individual level. For more information on the limitations of BMI click [here](#) link to beyond bmi page on professional site.

BMI ranges

