

FITNESS HEALTH CHECK - EXPLANATIONS

One of the main pieces of equipment we will utilise to test you in the Maltron BF906 seen below;

Maltron BF 906 – Body Composition Analyser

This medical grade Maltron BF 906 will simply & accurately calculate a number of areas of your body composition all in a matter of minutes. It is completely painless and non invasive and you are not required to remove any clothing except a shoe and a sock.

What is blood pressure?

Blood pressure is simply a measure of the pressure of your blood in the arteries as your heart is pumping it around your body. You may have heard phrases like 140 over 90. So what does that mean?

The first figure, in this case 140 is called the systolic blood pressure, while the second figure (90) is called the diastolic blood pressure.

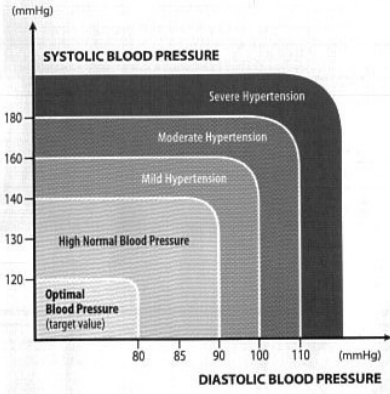

Systolic Blood pressure
Systolic (siss-tol-ick) blood pressure is a measure of the pressure as the heart pumps the blood into the arteries when it beats.

Diastolic Blood pressure
The diastolic (die-a-stollic) pressure is the smaller number. It is the pressure when the heart is at rest, between beats.

If the blood pressure is high, it means that the heart is working too hard, maybe because arteries — have hardened or narrowed. Imagine a garden hose being squashed under a heavy object (like a car wheel). It greatly increases the pressure inside the hose, damaging the hose one side and cutting off supply on the other.

What is normal blood pressure?

As more clinical studies show the damaging effects of high blood pressure, health authorities are now recommending that we should aim for a reading of 130/80 (mmHg). Your doctor will advise you of what you should be aiming for.



National Heart Foundation Australia, "Hypertension Management Guide for Doctors 2004", <http://www.heartfoundation.com.au/index.cfm?page=36> viewed 17 May, 2005.

Blood Pressure Tips

It's important to realize that changing your lifestyle or living habits could have a dramatic effect on your blood pressure. Therefore, to keep your blood pressure from becoming elevated exercise regularly, control your weight, limit alcohol consumption and avoid excess salt and dietary fats.

Body Composition refers to the relative proportions of body weight in terms of lean body mass and body fat. Lean body mass represents the weight of muscle, bone, internal organs and connective tissue. Body fat represents the remaining fat tissue. Body fat serves three important functions:

- 1) insulator to conserve heat
- 2) metabolic fuel for the production of energy
- 3) body fat serves as padding to cushion your internal organs

It's essential to maintain some body fat, but an excess level poses a serious health risk. High levels of body fat are associated with high blood pressure, increased levels of blood fats and cholesterol, heart disease, stroke, diabetes and certain cancers. In contrast, very low body fat can cause the development of such medical conditions as heart damage, gastrointestinal problems, shrinkage of internal organs, immune system abnormalities, disorders of the reproductive system, loss of muscle tissue, damage to the nervous system, abnormal growth and even death. Body fat is expressed as a percentage of total body weight.

Resting Heart Rate: This is your resting Heart Rate without any physical exertion at the time of the test. A more accurate resting heart rate should be taken 1st thing in the morning before hopping out of bed & before breakfast. The lower your RHR becomes the fitter & healthier you are. Average population is 70-80bpm. If all of a sudden your RHR rises then it may indicate some stress, impending sickness about to strike or overtraining.

Body Fat %: The percentage of your total weight made up of body fat (adipose tissue). This is the most important reading of your body composition analysis. A high body fat percentage is a proven risk factor for a number of health related problems including heart disease, high blood pressure, some cancers and diabetes among others. Your body fat percentage is also of interest for those who wish to “lose weight” or “tone up” as the healthiest way of doing this is by reducing your total body fat as well as increase your lean body mass rather than simply “losing weight” (the weight lost could consist of water, muscle or other important tissue).

Body Fat Weight: The total weight of your body fat. This is an excellent measure for setting goals, rather than simply aiming to two kilograms, we can now aim to lose one kilogram of body fat. This encourages you to lose weight in a healthy way and allows you to participate in healthy activities such as resistance training without the fear of “putting on weight”.

Target Fat %: The recommended minimum and maximum body fat % for a person of your age and gender. Note that this does not represent the “best” percent body fat for you but is a worthy goal.

Body Mass Index: A basic measurement of body composition calculated using height and weight measurements. $BMI = \text{weight} / \text{Height Squared}$, BMI is an inferior measurement of body composition although it is slightly more useful than simply measuring weight.

BMI Categories:

- Underweight = <18.5
- Normal weight = 18.5-24.9
- Overweight = 25-29.9
- Obesity = BMI of 30 or greater

Impedance: A useful tool for research purposes it is the raw value of the amount that the body impedes the electrical current sent through the body.

Resting Metabolic Rate: RMR is the minimum amount of energy (Calories) needed to sustain body function during rest. Again an extremely interesting and important measurement, RMR can be helpful in structuring healthy eating plan as well as providing an excellent incentive to participate in regular physical exercise (all forms of exercise, particularly weights training have a positive effect on resting metabolic rate).

Basal Metabolic Rate (BMR) (KCal) – THIS IS YOUR METABOLISM!

Your BMR is the amount of calories your body burns on a daily basis to stay alive. So, this is your metabolic rate – the rate at which your engine revs and burns fuel all day in order for you to survive. So, if you think you have a sluggish metabolism – we will confirm it with this measure. It is an awesome number to know so that you can take control of body and feed it the right amount so that you can achieve your goals. For example: If your BMR is 1300 calories then you must eat 1300 calories a day to stay at your current weight. But, if you want to lose weight you would want to consume approx 300 calories less than this so that your body burns stored fat to make up the difference. So, you would want approx 1000 calories per day. This is very powerful info and can put you in the fast track to your weight loss goal. Incidentally all forms of exercise, particularly weights training have a positive effect on resting metabolic rate.

Average Daily Energy Expenditure: By recording daily activity, it is possible to accurately estimate the total calories required per day. Again a very useful reading in structuring a healthy eating plan.

Target Weight: The recommended minimum and maximum weight for a person of your age and gender. With the above information such as body fat percentage and body mass index, this reading is barely applicable.

Lean Mass: The total weight of lean mass in the body made up predominantly of muscle, organs and bones. Your lean body mass has a direct influence on your resting metabolic rate and can be increased by all forms of exercise particularly weights training.

Lean %: The percentage of lean tissue in the body.

Water: The measurement of total water in the body. This can be useful in explaining rapid weight gains/losses.

Water %: Displays the measurement of water in the body as a percentage. Your water percentage reading can also indicate the you are dehydrated, any reading under your target water percentage will indicate this is the case.

Target Water %: The normal level of water % for a person of your gender and age.

Reach Measurement: A measure of skeletal flexion from the hips & a general indicator of back health.

Reach Rating: A rating versus population based on your age & reach. A high rating doesn't mean you shouldn't try to improve your reach measurement however as the rating are based on general health only.

How much water do you need a day?

Water is an important structural component of skin cartilage, tissues and organs. For human beings, every part of the body is dependent on water. Our body comprises about 75% water: the brain has 85%, blood is 90%, muscles are 75%, kidney is 82% and bones are 22% water. The functions of our glands and organs will eventually deteriorate if they are not nourished with good, clean water.

The average adult loses about 2.5 litres water daily through perspiration, breathing and elimination. Symptoms of the body's deterioration begins to appear when the body loses 5% of its total water volume. In a healthy adult, this is seen as fatigue and general discomfort, whereas for an infant, it can be dehydrating. In an elderly person, a 5% water loss causes the body chemistry to become abnormal, especially if the percentage of electrolytes is overbalanced with sodium. One can usually see symptoms of aging, such as wrinkles, lethargy and even disorientation. Continuous water loss over time will speed up aging as well as increase risks of diseases.

If your body is not sufficiently hydrated, the cells will draw water from your bloodstream, which will make your heart work harder. At the same time, the kidneys cannot purify blood effectively. When this happens, some of the kidney's workload is passed on to the liver and other organs, which may cause them to be severely stressed. Additionally, you may develop a number of minor health conditions such as constipation, dry and itchy skin, acne, nosebleeds, urinary tract infection, coughs, sneezing, sinus pressure, and headaches.

So, how much water is enough for you? The minimum amount of water you need depends on your body weight. A more accurate calculation, is to drink an ounce of water for every two pounds of body weight.

Target Daily Water Consumption Formulae:

$((\text{weight in kilograms} \times 2.2) / 2 / 15) \times 450 = \text{?? mls} / 1000 = \text{?? Litres per day}$



Cardiovascular fitness using Step-ups in this instance - is the ability of the heart, lungs and circulatory system to supply oxygen and nutrients to working muscles efficiently, and allows activities that involve large muscle groups (walking, running, swimming, biking, etc.) to be performed over long periods of time. From a health standpoint, cardiovascular or aerobic fitness is generally considered to be the most important of the fitness components.

Cardiovascular Tips – regular cardiovascular exercise can;

- Reduce your risk of heart disease
- Lower elevated blood pressure
- Reduce blood cholesterol
- Increase circulation and improve performance of your heart and lungs
- Help you look and feel better



Muscular strength is very important to your overall health and fitness. Adequate levels of strength are necessary to perform your daily routines at home and work without excessive fatigue or stress. Higher levels of muscular fitness also reduce the incidence of lower back pain and injury to the musculoskeletal system. Strong muscles also assist your cardiovascular system in sustaining physical activity.

Strength Tips

A well-rounded strength training program includes at least one exercise for each of the major muscle groups in your body. Minimally, you should include one core exercise for the lower body and two core exercises for the upper body. To avoid muscle fatigue, you should arrange your program so that successive exercises do not involve the same muscle group.

Assess Your Muscular Strength

Pushups don't have to be punishing, and they're an excellent indicator of your muscular strength.

Nobody loves a pushup, right? They're practically a hallmark of every basic-training Army scene—usually performed by a bunch of soldiers labouring under a brutal drill sergeant and in a torrential downpour. Pushups don't have to be quite so punishing, though, and they're an excellent indicator of your muscular strength.

Men and women will perform this test differently: Men will assume the full-body pushup position, with hands shoulder-width apart, back straight, toes on the ground. Women, meanwhile, will perform a "knees pushup"—identical to the men's in the upper body, but abbreviated below so that their knees are on the ground.

Once the basic set-up is mastered, simply perform as many pushups as possible in two minutes, keeping the back straight and, lowering the body until the chin touches the ground. Don't let the stomach touch, though. On the way up, be sure to completely straighten the arms—bending them so that only half a pushup is performed is not allowed.

Once the two minutes are up, you'll want to record your score and see how you've done. It's a bit complex, as age and gender affect the evaluation.

For Women: Pushups

Rating	Age 20 - 29	Age 30 - 39	Age 40 - 49	Age 50 +
Excellent	> 43	> 40	> 36	> 32
Good	39 - 43	35 - 40	32 - 36	28 - 32
Fair	21 - 38	17 - 34	12 - 31	10 - 27
Poor	< 21	< 17	< 12	< 10

For Men: Pushups

Rating	Age 20 - 29	Age 30 - 39	Age 40 - 49	Age 50 +
Excellent	> 80	> 73	> 66	> 58
Good	71 - 80	64 - 73	56 - 66	49 - 58
Fair	47 - 70	41 - 63	34 - 55	30 - 48
Poor	< 47	< 41	< 34	< 30

Source: U.S. Department of Health and Human Services



Flexibility is the ability to move a joint fluidly through its complete range of motion and is important to general health and physical fitness. Flexibility is reduced when muscles become short and tightened with disuse causing an increase in injury and strains.

Flexibility Tips

The following is a good outline to follow when stretching:

- Choose at least one exercise for each of the major muscle groups (10-12 in all).
- Stretch slowly without bouncing.
- Hold each stretch just below the pain threshold for 10-60 seconds.
- Perform 2-6 repetitions for each exercise.
- For improving flexibility the routine should be performed three days each week. For maintaining flexibility, 1 day each week.



Access your Balance

Often overlooked by everyone except gym teachers, balance is a key component of overall physical fitness—explicitly, say, when you're in a yoga class working on tree or a similar pose. But balance has a more implicit role in most all sports, where a lack of it will unnecessarily complicates tossing a tennis ball for your serve, making a difficult catch, or manoeuvring your way up a rock wall.



When getting started on an exercise program – remember;

1. Check with your physician before starting any new exercise program.
2. Each of your exercise sessions should begin and end with a 7-10 minute warm-up and cooldown of light exercise, which should consist of an OwnZone check.
3. Monitor your heart rate to keep within your exercise intensity recommendations for safety and to achieve maximum results.

To get the optimal benefits from your program, exercise with your heart rate between the recommended ranges for each day of your program for the entire workout (excluding warm-up and cool down).

Ideally using a Polar Heart Rate Monitor will enable you to determine your individual training heart rate zone. This exercise zone is called your OwnZone (OZ). Using OwnZone is key to get the most from your exercise because it detects daily physiological changes and recommends the proper exercise heart rate range for that day. It is recommended to do an OwnZone check as a warm-up before each exercise session.

Light: Exercising the Light intensity zone (60-70%HRmax) is good for improving health and fitness. It also improves basic endurance and helps you to recover from heavier exercise.

Moderate: Exercising in the Moderate intensity zone (70-80%HRmax) is effective particularly for improving aerobic fitness. All programs include exercise in this intensity zone.

Hard: The Hard intensity zone (80-90%HRmax) is for relatively short exercise at high intensity. Exercising in this zone causes heavy breathing, muscle tiredness, fatigue and increases maximum performance capacity.

What is the procedure, how long does it take and how do I prepare for the test?

The procedure is very simple. You visit us at our studio and we have a brief discussion about your current health and any goals you may have for your future health &/or fitness. You explain to us why you wish to have the analysis and what information you would like from us based upon your test results.

For the test we will need:

- your age
- your weight (we can weigh you)
- your height (we can measure you)

We then use this info to input into the analyser so that it can give us a highly accurate result.

All you will need to do is take off your right shoe and sock (no other clothing needs to be removed at all) and lie down flat with your arms & legs slightly apart. We will then attach the electrodes to your right hand & wrist and your right ankle and foot as in the pictures above.

We are then ready for the test and after we input all of your details we simply press test and the analyser goes to work. It is completely painless and you will not feel anything. It will take about 30 seconds to perform the analysis and provide your results.

We will then remove the electrodes and you can sit up and put your shoe & sock back on and then we'll present you with your results and explain what they mean. We'll give you a report table to take away with recommendations added by us (if necessary) beside the result that needs attention.

Preparation on your part prior to the test:

To prepare for the test all we ask is that you refrain from coffee, alcohol or soft drinks for approx 12 hours prior to the test and ensure that you have not eaten for at least 3-4 hours prior.

Consultations are approximately 30-60 minutes (time dependant on test results and level of explanation needed) and are available by appointment all day Monday – Saturday.

How does the Maltron BF-906 work?

Bio-electrical impedance at 50kHz works by measuring the impedance (resistance plus reactance - at this frequency the current passes across cell membranes) of the body to a safe alternating current.

Maltron Analyser uses the scientific tetrapolar method of four electrodes which are applied to the right side of the body on the hand, wrist, foot and ankle. On entering all the parameters and resting in supine position with hands and legs slightly apart, Maltron BF-906 is activated. The processing powers of the BF-906 analyses the data and displays the statistics within seconds.

Bio-electrical Impedance is a scientific word used to describe our body's ability to resist (slow down) electricity as it flows through us.

Maltron Analysers measure the flow of electrical signals as they pass through Fat, Lean tissue and water each resisting, the flow of electrical signals at different rates giving us a highly reliable and accurate measure of the amounts of each of these components.

Book Your Test Today

Only \$99–Club Member Discount Applies

Call Now (08) 8688 1932

Or send an email enquiry to thinkingfitness@sctelco.net.au

Fruit &	Vegetable Benefits				
apples	Protects your heart	prevents constipation	Blocks diarrhea	Improves lung capacity	Cushions joints
apricots	Combats cancer	Controls blood pressure	Saves your eyesight	Shields against Alzheimer's	Slows aging process
artichokes	Aids digestion	Lowers cholesterol	Protects your heart	Stabilizes blood sugar	Guards against liver disease
avocados	Battles diabetes	Lowers cholesterol	Helps stops strokes	Controls blood pressure	Smooths skin
bananas	Protects your heart	Quiets a cough	Strengthens bones	Controls blood pressure	Blocks diarrhea
beans	Prevents constipation	Helps haemorrhoids	Lowers cholesterol	Combats cancer	Stabilizes blood sugar
beets	Controls blood pressure	Combats cancer	Strengthens bones	Protects your heart	Aids weight loss
blueberries	Combats cancer	Protects your heart	Stabilizes blood sugar	Boosts memory	Prevents constipation
broccoli	Strengthens bones	Saves eyesight	Combats cancer	Protects your heart	Controls blood pressure
cabbage	Combats cancer	Prevents constipation	Promotes weight loss	Protects your heart	Helps haemorrhoids
cantaloupe	Saves eyesight	Controls blood pressure	Lowers cholesterol	Combats cancer	Supports immune system
carrots	Saves eyesight	Protects your heart	Prevents constipation	Combats cancer	Promotes weight loss
cauliflower	Protects against Prostate Cancer	Combats Breast Cancer	Strengthens bones	Banishes bruises	Guards against heart disease
cherries	Protects your heart	Combats Cancer	Ends insomnia	Slows aging process	Shields against Alzheimer's
chestnuts	Promotes weight loss	Protects your heart	Lowers cholesterol	Combats Cancer	Controls blood pressure
chilli peppers	Aids digestion	Soothes sore throat	Clears sinuses	Combats Cancer	Boosts immune system
figs	Promotes weight loss	Helps stops strokes	Lowers cholesterol	Combats Cancer	Controls blood pressure
fish	Protects your heart	Boosts memory	Protects your heart	Combats Cancer	Supports immune system

flax	Aids digestion	Battles diabetes	Protects your heart	Improves mental health	Boosts immune system
garlic	Lowers cholesterol	Controls blood pressure	Combats cancer	kills bacteria	Fights fungus
grapefruit	Protects against heart attacks	Promotes Weight loss	Helps stops strokes	Combats Prostate Cancer	Lowers cholesterol
grapes	saves eyesight	Conquers kidney stones	Combats cancer	Enhances blood flow	Protects your heart
green tea	Combats cancer	Protects your heart	Helps stops strokes	Promotes Weight loss	Kills bacteria
honey	Heals wounds	Aids digestion	Guards against ulcers	Increases energy	Fights allergies
lemons	Combats cancer	Protects your heart	Controls blood pressure	Smooths skin	Stops scurvy

Fruit &	Vegetable	Benefits	continued		
limes	Combats cancer	Protects your heart	Controls blood pressure	Smooths skin	Stops scurvy
mangoes	Combats cancer	Boosts memory	Regulates thyroid	aids digestion	Shields against Alzheimer's
mushrooms	Controls blood pressure	Lowers cholesterol	Kills bacteria	Combats cancer	Strengthens bones
oats	Lowers cholesterol	Combats cancer	Battles diabetes	prevents constipation	Smooths skin
olive oil	Protects your heart	Promotes Weight loss	Combats cancer	Battles diabetes	Smooths skin
onions	Reduce risk of heart attack	Combats cancer	Kills bacteria	Lowers cholesterol	Fights fungus
oranges	Supports immune systems	Combats cancer	Protects your heart	Straightens respiration	
peaches	prevents constipation	Combats cancer	Helps stops strokes	aids digestion	Helps haemorrhoids
peanuts	Protects against heart disease	Promotes Weight loss	Combats Prostate Cancer	Lowers cholesterol	Aggravates diverticulitis
pineapple	Strengthens bones	Relieves colds	Aids digestion	Dissolves warts	Blocks diarrhea
prunes	Slows aging process	prevents constipation	boosts memory	Lowers cholesterol	Protects against heart disease
rice	Protects your heart	Battles diabetes	Conquers kidney stones	Combats cancer	Helps stops strokes

strawberries	Combats cancer	Protects your heart	boosts memory	Calms stress	
sweet potatoes	Saves your eyesight	Lifts mood	Combats cancer	Strengthens bones	
tomatoes	Protects prostate	Combats cancer	Lowers cholesterol	Protects your heart	
walnuts	Lowers cholesterol	Combats cancer	boosts memory	Lifts mood	Protects against heart disease
water	Promotes Weight loss	Combats cancer	Conquers kidney stones	Smoothes skin	
watermelon	Protects prostate	Promotes Weight loss	Lowers cholesterol	Helps stops strokes	Controls blood pressure
wheat germ	Combats Colon Cancer	prevents constipation	Lowers cholesterol	Helps stops strokes	improves digestion
wheat bran	Combats Colon Cancer	prevents constipation	Lowers cholesterol	Helps stops strokes	improves digestion
yogurt	Guards against ulcers	Strengthens bones	Lowers cholesterol	Supports immune systems	Aids digestion

7 dont's after a meal

- * **Don't smoke**-Experiment from experts proves that smoking a cigarette after meal is comparable to smoking 10 cigarettes (chances of cancer is higher).
- * **Don't eat fruits immediately** - Immediately eating fruits after meals will cause stomach to be bloated with air. Therefore take fruit 1-2 hr after meal or 1hr before meal.
- * **Don't drink tea** - Because tea leaves contain a high content of acid. This substance will cause the Protein content in the food we consume to be hardened thus difficult to digest.
- * **Don't loosen your belt** - Loosening the belt after a meal will easily cause the intestine to be twisted & blocked.
- * **Don't bathe** - Bathing will cause the increase of blood flow to the hands, legs & body thus the amount of blood around the stomach will therefore decrease. This will weaken the digestive system in our stomach.
- * **Don't walk about** - People always say that after a meal walk a hundred steps and you will live till 99. In actual fact this is not true. Walking will cause the digestive system to be unable to absorb the nutrition from the food we intake.
- * **Don't sleep immediately** - The food we intake will not be able to digest properly. Thus will lead to gastric & infection in our intestine.