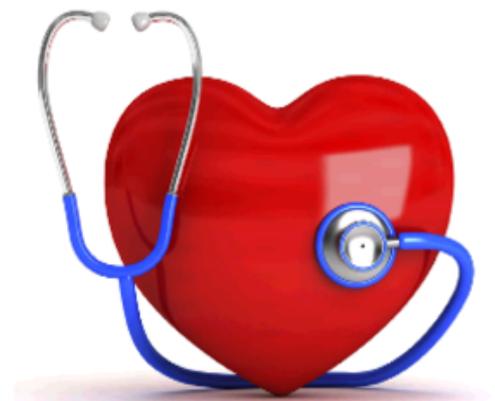# Health Assessment for FRED SMITH

Generated on 29 July 2016
For Fitech Test Application

Introduction

About Your Reports:

Your personal report will help you to understand the key lifestyle issues that directly affect your health and wellness. Potential problem areas are identified for you with advice and guidance towards positive changes that will make a difference.

You control your own lifestyle. The choices you make every day concerning smoking, drinking, regular exercise, the food you eat and the way you cope with pressure, all have a profound affect on your quality of life.

We hope that this report will motivate you to set personal health and fitness goals and commit to a healthy lifestyle.

Positive Health Choices:

To help you fully understand the potential benefits of making desirable lifestyle changes, it is important to consider your present lifestyle and fitness levels.

A base line of information about yourself helps you to focus clearly upon your personal goals and provides a starting point from which to measure improvements in your health and wellness.

Understanding Your Report:

All the information in this report is based upon the latest scientific research and medical thinking. Your assessment results and responses to lifestyle questionnaires are evaluated and presented to you in a format that is quick and easy to understand following a simple traffic light system indicating:

- Green = Good
- Amber = Need for improvement
- Red = Below Average

If you have any questions, need additional help or would like information on other health and wellness services, please ask a member of staff who will be pleased to help you.

Confidentiality:

Our aim is to ensure that your personal information remains personal. We will at all times protect the confidentially of the information supplied by you.

From time to time your responses and results may be used for scientific and statistical purposes. However these cannot be traced back to you and in no way affect your rights as an individual.

Lifestyle Review

Basic Data

Height / Weight:

Metric: 180.00 cm / 88.00kg - Imperial: (5 ft 11 ins / 13st 12lbs)

BMI:

27.16

Smoking Habits

Status:

Smoker

Summary:

A cigarette smoker doubles their risk of dying from coronary heart and cardiovascular disease compared to a non-smoker. If they also suffer from high blood pressure and high cholesterol then there is an eight-fold increase in risk. By stopping smoking, the risk of heart disease is rapidly reduced.

You are no doubt aware of the risks of smoking; if you would like to give up there are a number of professional sources to assist you.

Activity - Occupation

Your Occupation Rating:

Physically Inactive Occupation (Out of 5)

Recorded Score:

1

Graphical Summary:

physically inactive	moderately inactive	active job	heavy physical job	extreme physical job

Activity - Leisure

Leisure Activity Rating:

Inactive (Out of 5)

Recorded Score:

1

Graphical Summary:

inactive	slightly active	moderately active	very active	extremely active

Activity & Leisure Observations

Summary:

Physical activity reduces the risk of heart disease, high blood pressure, diabetes,osteoporosis, certain types of cancer, reduces stress and helps you sleep. To benefit from physical activity you need to ensure that you give yourself time to fit 30 minutes of moderate physical activity into every day. Activities such as brisk walking, using the stairs rather than a lift, moving more and sitting less all make it easy for you to fit activity into your day.

You appear not to be active in your job or during your free time. Leading a sedentary life can make it difficult to maintain your health and well-being. There are many ways to increase your level of activity during your free time. The key is to find something which you enjoy and can easily fit in to your life. There are many activities you can participate in which will help you achieve at least 30 minutes of moderate exercise per day. Something as simple as walking can make a big difference, using a pedometer to measure your current levels of activity is a good start.

Fitness Health Results

Body Mass Index

The Body Mass Index (BMI) rating is an indicator of total body composition. It is calculated by dividing your weight in kilograms by your height in metres squared (m2). A healthy BMI for an adult is between 18.5 and 25. Body mass index (BMI) is used to estimate the total amount of body fat, but it does not differentiate between body fat and muscle mass and may not accurately reflect changes in body composition.

Differences in BMI between people of the same age and gender are usually due to body fat. However calculations will overestimate the amount of body fat for body builders, some high performance athletes and pregnant women. BMI calculations may underestimate the amount of body fat for the elderly or people with a physical disability who may have muscle wasting.

BMI value: 27.16

| Underweight | Normal | Overweight | Obese-1 | Obese-2 | Obese-3 |

Rating: Overweight

Body Mass Index Ranges - (World Health Organisation)			
Underweight	< 18.50	Obese 1	30 - 34.99
Normal Range	18.5 - 24.99	Obese 2	35 - 39.99
Overweight	25 - 29.99	Obese 3	>= 40

Summary:

Your BMI as calculated from your height & weight, is higher than the recommended range. A body mass index of >25 - 29.99 carries increased health risks. Being above the ideal weight is a health risk resulting in increased and earlier onset of disease and death from conditions including high blood pressure, diabetes, heart attack and stroke, arthritis, and some cancers.

Carrying extra weight can also be a major risk factor for sleep apnoea and poor quality of life. You should aim to adopt a healthier eating regime and incorporate daily exercise with guidance from a health professional.

Body Composition

Body fat percentage is the amount of body fat as a proportion of your body weight. Reducing excess levels of body fat has shown to reduce the risk of certain conditions such as high blood pressure, heart disease,diabetes and cancer. Lean weight is the component of body weight that is not fat, including bone, muscle and organs such as the brain, heart and liver.

Your Body Fat %	25.00 %

Underfat	Healthy	Overfat	Obese

Rating	Overfat
Acceptable Range	10.0 - 22.9 %
Your Fat Weight	22.00 kg (48.40lbs)
Your Weight	88.00 kg (193.60lbs)
Target Weight Range	59.94 - 80.68 kg (131.87 - 177.49lbs)
Your Lean Weight	75.00 % / 66.00 kg (145.20lbs)
Summary	Results show that your body fat levels are higher than recommended for a person of your age. This can increase your risk of developing diabetes, heart disease and other medical conditions. A combination of eating a healthy diet and regular physical activity should help to keep your body fat levels within recommended levels.
Estimated Metabolic Rate:	2310.00 kcal
	The term 'metabolic rate' (RMR) refers to the energy (calories) you expend over a day just keeping your body functioning - your heart beating and your lungs breathing, for example. Resting Metabolic Rate and the energy required for physical activity make up your total energy expenditure, or total energy needs.

Total Body Water Percentage

Total Body Water Percentage is the total amount of fluid in your body expressed as a percentage of total weight. Water plays a vital role in many of the body's processes and is found in every cell, tissue and organ. Maintaining a healthy total body water percentage will ensure the body functions efficiently and will reduce the risk of developing associated healthproblems.

Your body water levels naturally fluctuate throughout the day and night. Your body tends to be dehydrated after a longnight and there are differences in fluid distribution between day and night. Drinking a large quantity of water in one sitting will not instantly change your water level. In fact, it will increase your body fat reading due to the additional weight gain.

Please monitor all readings over time to track the relative change. Every individual varies but as a guide the average total body water percentage ranges for a healthy adult are 45 to 60% for females and 50 to 65 % for males.

Water %: 22.00 %

Total Water Weight: 19.36 kg (42.59lbs)

Below Average	Average	Above Average

Rating: Below Average

Summary: You hydration levels are below average. Eating large meals, drinking alcohol, menstruation, illness, exercising, and bathing may cause variations in your hydration levels. Your body water percentage reading should act as a guide and should not be used to specifically determine your absolute recommended total body water percentage. It is important to look for long-term changes in total body water percentage and maintain a consistent, healthy total body water percentage.

Visceral Fat

Visceral fat is the fat that is in the internal abdominal cavity, surrounding the vital organs in the trunk (abdominal) area. Research shows that 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 trunk area especially post menopause. Ensuring you, have healthy levels of visceral fat my reduce the risk of certain diseases such as heart disease, high blood pressure, and the onset of type 2 diabetes.

Visceral Fat: 40.00

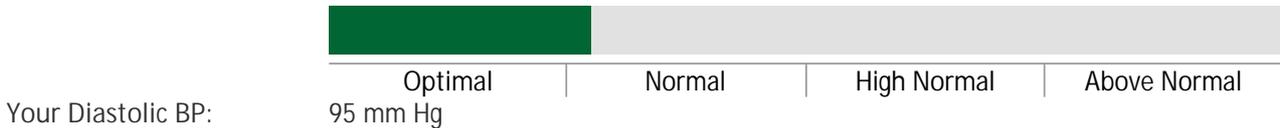| Excessive	Healthy

Rating: Excessive

Summary: This indicates that you have an excess level of visceral fat. Consider making changes in your lifestyle possibly through diet changes or increasing exercise.

Blood Pressure

Blood Pressure is the measure of the force that the heart needs to pump blood through the body. There are two different measures Systolic that measures the contraction phase or pumping pressure of the heart and Diastolic that measures the relaxation phase of the heart or the pressure in the arteries when the heart is filling up with blood.

Blood pressure can vary throughout the day and be affected by physical activity, stress, smoking and caffeine intake. High blood pressure is a major risk factor for diseases such as Coronary heart disease, Stroke, Heart Failure, Peripheral vascular disease, Kidney Failure.

Your Systolic BP: 120 mm Hg

Optimal	Normal	High Normal	Above Normal

Your Diastolic BP: 95 mm Hg

Optimal	Normal	High Normal	Above Normal

Rating: Grade 1 hypertension (mild)

Summary:

Your blood pressure is above the normal range.

We suggest you have your blood pressure re-checked and seek advice from your health professional. If the readings continue in this range further medical advice may be necessary and you should review your lifestyle in an attempt to lower your blood pressure. The following lifestyle measures are recommended:

- Maintain a normal body weight (body mass index 20-25)
- Reduce salt intake to under 6g per day
- Limit alcohol consumption to under 3 units per day for men and under 2 units for women
- Engage in some kind of aerobic physical activity exercise ideally on most days of the week but at least on three days of the week
- Consume at least two portions of fresh fruit and five of vegetables every day
- Reduce the intake of total and saturated fat.

Resting Heart Rate

Resting heart rate (RHR) is the number of beats in one minute when you are at complete rest. Your resting heart rate indicates your basic fitness level. The fitter you are, the less effort and fewer beats per minute it takes your heart to pump blood to your body at rest and your RHR will be a lower number.

Resting Heart Rate: 88 BPM

| Poor	Average	Good	Excellent

Rating: Poor

Summary:

Resting Heart Rate (RHR) usually rises with age and is generally lower in people who are physically fit. Your resting heart rate is poor which reflects either poor aerobic fitness or it could be a sign that you are unwell. Monitor your heart rate first thing in the morning over the coming week to see if it changes. If your RHR continues to be high you should visit your GP to see if your thyroid is overactive, you are anaemic, or you have an infectionor other cause of a rapid heart rate. Also, if your heart rate races or you feel it miss a beat it would be worthwhile consulting your doctor.

Lung Function - Forced Vital Capacity (FVC)

Lung function tests enable us to give an indication of the size and efficiency and strength of your lungs. Normal readings vary, depending on your age, height and gender. Forced Vital Capacity (FVC) is the total amount of air that you blow out in one breath. Maintaining a good level of aerobic activity helps your lung function. It is impaired by smoking, if you have a cold and various pulmonary disorders such as Asthma.

(FVC):

Acceptable Range	Test Result
3.98 - 4.91 l/min	9.00 l/min
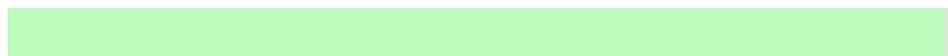
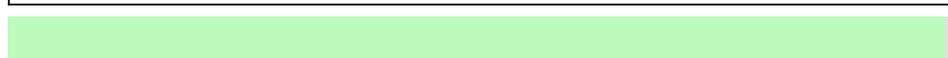| Very Low	Low	Normal Range	Good	Excellent

Rating: Excellent

Summary:

Good lung function normally means your physical activity is high, particularly aerobic activity, such as running, swimming and cycling. This result is rated as excellent, which is more than 15% above the national average. Keep up the good work!

Lung Function - Forced Expiratory Volume (FEV$_1$)

FEV1 is the amount of air expelled from your lungs in the first second and is a measure of lung strength.

(FEV$_1$):

Acceptable Range	Test Result
3.24 - 4.00 l/min	6.00 l/min

Very Low	Low	Normal Range	Good	Excellent

Rating: Excellent

Summary:

Good lung function normally means your physical activity is high, particularly aerobic activity, such as running, swimming and cycling. This result is rated as excellent, which is more than 15% above the national average. Keep up the good work!

Lung Function - Forced Expiratory Ratio % (FER)

This is the ratio % between FEV1, the amount of air you can forcibly expel in the first second and your Forced Vital Capacity (FVC) . This reading gives a indication of lung efficiency.

(FER):

Acceptable Range	Test Result
74 - 82 %	67 %

Very Low	Low	Normal Range	Good	Excellent

Rating: Normal Range

Summary:

Well done! Your result is within recommended healthy levels.

Lung Function - Peak Flow (PEF)

A Peak Flow (PEF) test gives an indication of the size and power of your lungs. PEF measures the fastest rate of airflow that you can blow out of your lungs.Normal readings vary, depending on your age, height and gender Having a good level of physical activity helps to increase your lung function. It is impaired by smoking, if you have a cold or various pulmonary disorders, such as Asthma.

The Predicted Peak Flow is the expected ideal value based on your age, height and gender. Your Acceptable range is 80 to 100% of this.

(PEF):

Acceptable Range	Test Result
510 - 638 l/min	300 l/min (EU)

Very Low	Low	Normal Range	Good	Excellent

Predicted Peak Flow: 638 l/min

Rating: Very Low

Summary: This is a very low result; very low levels are associated with common pulmonary disorders such as Asthma. There are also Chronic Obstructive Pulmonary Diseases, such as Bronchitis and Emphysema. Smoking would have a major effect. We would recommend that you seek further medical advice unless you are just getting over a cold.

Sit and Reach

Being able to bend, stretch, twist and turn through a full range of movement is very important in everyday life. Flexibility is the range of movement available to a joint or group of joints. The Sit and Reach test gives a good indication of the overall flexibility as it involves the calves, hamstrings, pelvis, lower back, shoulders and arms.

Sit and Reach value: 27 cms (11ins)

Poor	Below Average	Average	Good	Excellent

Rating: Below Average

Summary: Your flexibility is below average. This will increase your risk of developing lower back problems and affect your posture. Make every effort to increase your flexibility. However, if you have had any lower back problems or injuries you may wish to discuss this with your doctor first.

Medical Test Results

Total Cholesterol

Cholesterol is a waxy substance that is produced naturally in our liver and other organs. We also absorb cholesterol from food that comes from animals such as meat, poultry, fish, seafood and dairy products, especially egg yolks. Our bodies need a certain amount of cholesterol to make cell membranes, insulate nerves and to produce hormones. Too much cholesterol however, can affect your health. A cholesterol level below 5mmol/l is desirable.

Cholesterol: 5.50 mmol/l (212.69 mg/dL)

| Undesirable	Increased Risk	Desirable	Ideal

Rating: Increased Risk

Summary: Your total cholesterol level is above the recommended levels and you would certainly benefit by lowering it. It would seem that the starting point is to reduce the amount of saturated fat.

HDL

High density lipoproteins (HDL's) are referred to as "good cholesterol" which remove unwanted fats and cholesterol from the tissues to the liver for removal. An ideal level for men is 1 mmol/l or greater and equal or greater than 1.2 mmol/l for women.

HDL: 1.00 mmol/l (38.67 mg/dL)

Undesirable	Desirable
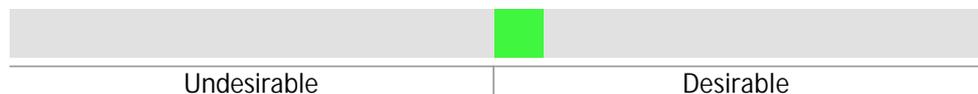
Rating: Desirable

Summary: Your HDL cholesterol is in the desirable range which is very good. Genetic differences account for much of the variation in HDL levels. The most important lifestyle factor that impacts on HDL levels is regular aerobic exercise.

Total Cholesterol / HDL Ratio

Your TC:HDL ratio is calculated by dividing your total cholesterol by your HDL cholesterol. Your ratio of HDL to total cholesterol to should be 4mmol/l or under . This reflects the fact that for any given total cholesterol level, the more HDL (Good Cholesterol), the better. A higher ratio indicates a higher risk of heart disease; a lower ratio indicates a lower risk.

TC / HDL Ratio: 5.50

Rating: Undesirable

Summary: Your TC/HDL ratio is undesirable. Aerobic exercise on most days of the week can help increase up HDL as well as increasing monounsaturated fats and soluble fibre to your diet. Smoking , Obesity, Trans fatty Acids can lower levels.

LDL

Low density lipoproteins (LDL's) carry circulating blood fats from the liver to the bloodstream and are therefore a significant indicator of coronary artery disease risk. An ideal level is 3.0mmol/L or less.

LDL: 3.14 mmol/l (121.42 mg/dL)

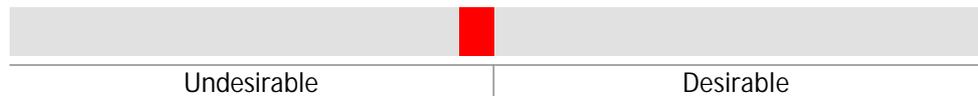| Undesirable	Desirable
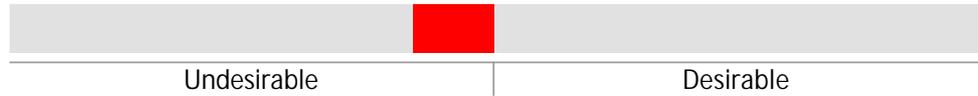
Rating: Undesirable

Summary: Your LDL cholesterol is in the increased risk range. It would be beneficial for you to reduce your level to help reduce your risk of heart disease. You can do this by reducing your intake of saturated fats such as take away foods, processed meats and snack foods, as well as by increasing your intake of monounsaturated fats such as avocados, olives and olive oil. Increasing your physical activity is also crucial. We recommend that you consult your GP for follow up.

Triglycerides

Triglycerides are another type of fatty substance in the blood. They are found in foods such as dairy products, meat and cooking oils. They can also be produced in the body, either by the body's fat stores or in the liver. People who are very overweight, eat a lot of fatty and sugary foods, or drink too much alcohol are more likely to have a high triglyceride level and have a greater risk of developing cardiovascular disease. A Triglycerides level below 1.7 mmol/l is desirable.

Triglycerides: 3.00 mmol/l (267.00 mg/dL)

Undesirable	Desirable

Rating: Undesirable

Summary: You appear to have high triglycerides levels which place you at increased risk of heart disease. It is recommended that you achieve and maintain a healthily body weight, drink moderately and reduce consumption of high-sugar foods and drinks. Omega 3 fatty acids can also have a beneficial effect on triglycerides.

Non Fasting Blood Sugar

Blood sugar or glucose is a measure of how much sugar is being carried in the bloodstream. A high reading may be an indication of glucose intolerance, a precursor to Diabetes. This is often due to excess body weight, inactivity and a diet containing high fat and high glycaemic carbohydrates.

Blood Sugar (NF):   8.00 mmol/l (144.00 mg/dL)

Low / Potential Risk	Desirable	Increased / Potential Risk	Undesirable

Rating: Increased / Potential Risk

Summary: Your blood sugar levels are in the increased/ potential risk range. Eating or drinking within 2 hours prior to the test can effect your glucose levels. An occasional high blood glucose level may occur, which is not usually a problem, but if consistently high then lifestyle modification and possibly medication may be necessary. We recommend that you consult your health consultant to see if any follow up is required.

HbA1c

HbA1c indicates your blood glucose levels for the previous two to three months. The HbA1c measures the amount of glucose that is being carried by the red blood cells in the body. Glucose in the blood sticks to haemoglobin in red blood cells, making glycosylated haemoglobin, also called haemoglobin A1c or HbA1c. The more glucose in your blood, the more HbA1c will be present, so the level reported will be higher. The HbA1c gives a measure of what your average blood glucose level has been in the previous 2-3 months. The better your blood glucose control, the less chance there is of you developing diabetes and complications such as eye, kidney or nerve damage, heart disease or stroke. Red blood cells live for about 8-12 weeks before being replaced. Therefore, the HbA1c test tells you what your blood glucose has been over the past few months.

HbA1c: 25.00 mmol/l (4.44 %)

| Desirable | Potential Risk | Possible Diabetes |

Rating: Desirable

Summary: Your HbA1c levels are in the desirable range which is good. However a regular blood glucose check is recommended, at least annually, to ensure that your blood sugar levels stay within the normal range.

Coronary Risk Assessment Results

Joint British Societies Cardiovascular Risk Assessment

Introduction: The Joint British Societies Cardiovascular Risk Assessor calculates your percentage likelihood of developing CVD, cardiovascular disease (CHD and stroke added together) over a 10 year period e.g. a risk of 15% means that there is a 15 in 100 chance of a CVD event in the next 10 years.

Diseases of the heart and circulatory system (cardiovascular disease or CVD) are the main cause of death in the UK and account for over 208,000 deaths each year. More than one in three people (36%) die from CVD each year. The main forms of CVD are coronary heart disease (CHD) and stroke. The risk score is an indication only and should not take the place of clinical judgment or careful medical examination.

Current Risk: The graph and table below shows the percentage chance of your having a coronary event over the next ten years. The lower the percentage the better.
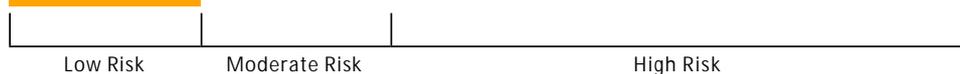
Parameter	Reading
Ten Year Risk	19%
Systolic Blood Pressure	120 mm Hg
Diastolic Blood Pressure	95 mm Hg
Total Cholesterol	5.5 mmol/l
HDL	1 mmol/l
Smoking Habits:	Cigarette Smoker

JBSCRA Graphical Summary

Current Risk: (19%)

Potential Risk: (10%)

| Low Risk | Moderate Risk | High Risk |

JBSCRA Potential Improvement

Potential Improvement: By making the following changes to your lifestyle, your JBS Cardiovascular Risk would change from 19% to 10%, and your risk of a coronary event would decrease .

Parameter	Reading
Ten Year Risk	10%
Systolic Blood Pressure	120 mm Hg
Diastolic Blood Pressure	80 mm Hg
Total Cholesterol	4 mmol/l
HDL	1 mmol/l
Smoking Habits:	Cigarette Smoker

Recommendations: Although you cannot influence certain factors such as your family medical history, others can be influenced by changes in your lifestyle. By making improvements to your lifestyle you can reduce your risk of a coronary event. The graph above shows a projected risk based on making changes in your lifestyle. By making these changes to your lifestyle you would have:

- Changed your Total Cholesterol from 5.5 to 4 mmol/l
- Changed your Systolic Blood Pressure from 120 to 120 mm Hg
- Changed your Diastolic Blood Pressure from 95 to 80 mm Hg
- Changed your HDL from 1 to 1 mmol/l

How to Reduce My Risk of Coronary Disease

Summary: Most people who develop heart disease have recognised risk factors which contribute to the cause of the disease.
The major risk factors include:

- Raised cholesterol level in the blood
- Elevated blood pressure
- Smoking

Other risk factors for heart disease include:

- Diabetes
- Obesity and excess weight
- Inactivity
- Family history
- Gender and age

Despite risk factors that cannot be changed such as gender, age and family history, adopting a healthy lifestyle by limiting your fat intake, not smoking and having an active, healthy lifestyle will reduce your risk of developing heart disease.