



**HUMAN  
PERFORMANCE  
INSTITUTE**

**Health and Fitness Assessment  
Report for:  
Jane Citizen**

**Date of Assessment:**  
Tuesday 26 Feb 2008 14:02

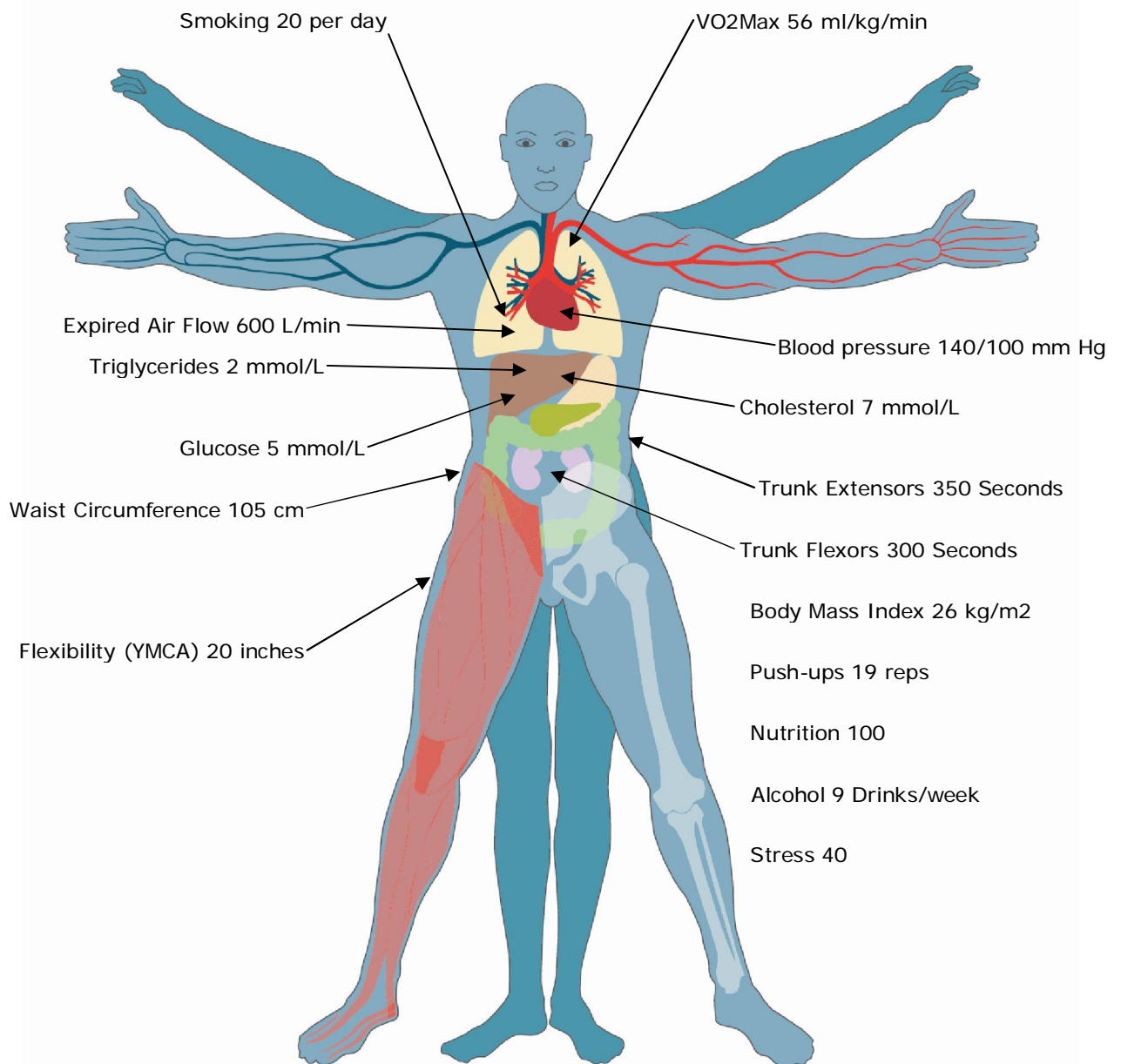
**Date of Review:**  
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## **YOUR HEALTH AND LONGEVITY**

BioAge testing is designed to assess those health and fitness components that are known to have a significant impact on your health and longevity – it is well known that the ageing process is not pre-determined, but occurs due to the accumulation of subtle faults in our cells and organs through wear and tear. It is affected by both our genetics and the lifestyle choices we make. This report gives a breakdown of your Biological Age, and gives basic background health information and advice on how to go about reducing your Biological Age and improving your longevity. This advice is designed to be used in consultation with your primary health-care provider.

**Chronological Age 51**

**Bio Age 56**



## BLOOD PRESSURE

Blood pressure is the force of the blood pushing against the artery walls. It is greatest when the heart contracts (systolic pressure) and lowest when the heart is resting briefly between beats (diastolic pressure). Overall blood pressure is affected by how hard the heart pumps, the amount of blood in the body and the diameter of the blood vessels.

Blood in the arteries carries essential materials such as oxygen and other nutrients to every cell in the body and blood in the veins carries waste products away from the cells to be disposed of. This exchange of nutrients is critical to the survival of our cells and both blood pressure and concentration must be within certain levels for this to occur.

The World Health Organisation recently defined high blood pressure as being greater than 140/90. High blood pressure usually doesn't give early warning signs and for this reason is known as the 'silent killer', because it increases the risk for coronary heart disease and other forms of heart disease, stroke, and kidney failure.

Nearly three in ten adults have high blood pressure and this figure rises to two in three among the elderly. Factors that contribute to high blood pressure include:

- Being overweight
- Stress
- Family history
- Excessive salt intake
- Chronic dehydration
- Smoking
- Inactivity
- Excessive alcohol

### Blood Pressure Classification

	Ideal	Acceptable	High	Very High
Systolic	120	< 140	140-150	>150
Diastolic	80	< 90	90-95	>95

**Your results: Systolic/Diastolic 140/100**

Good lifestyle habits lie at the foundation of both prevention and treatment of high blood pressure. Major lifestyle modifications shown to lower blood pressure include weight reduction in those who are overweight or obese, increased physical activity, moderation of alcohol consumption and adoption of a healthy eating plan (particularly the DASH eating plan, which is low in sodium and high in calcium and potassium).

## CHOLESTEROL

Cholesterol is a chemical substance used in the body for many and various things. One is to assist in the metabolism (breakdown) of fats. It also helps in the production of hormones, especially the sex hormones, and cholesterol helps to maintain the health of sheaths around your body's nerves. The body actually manufactures about three-quarters of the cholesterol in your system. Hence, we eat cholesterol and we also produce it in our liver.

The body is very clever at working out how much cholesterol it needs. The more animal fat you eat, the more your liver can be stimulated to produce cholesterol. Genetics also play a large part in determining what levels of cholesterol show up on your tests.

There are different types of cholesterol. Cholesterol is carried around the body by lipoproteins, and Low Density Lipoproteins (LDLs - the 'bad cholesterol') tend to dump cholesterol in the arteries, causing it to stick to the walls. Here it is chemically altered to a toxic compound and scar tissue forms, making it easier for more cholesterol to stick - hence the process intensifies and blockages occur. That's not good for blood flow, and if the blood flow in the tiny coronary or heart arteries is limited, you're heading towards a heart attack or heart problem.

The High Density Lipoproteins (HDLs - the 'good cholesterol') tend to scavenge the cholesterol from arteries and transport it back to the liver where it's metabolised. Your HDL level should be at least a quarter of your total cholesterol level – in other words, the ratio between your total cholesterol and HDL should be less than 4.

	Ideal	Acceptable	Elevated	High
Total Cholesterol	< 5.2	5.21 – 5.5	5.51 – 6.5	> 6.51
LDL	< 3.4	3.4 – 3.8	3.81 – 4.1	> 4.1
HDL	> 0.9			
Total/HDL ratio	< 4.0			

### Your results:

**Total cholesterol** : 7

**LDL cholesterol** :

**HDL cholesterol** :

**Total /HDL ratio** :

The consequence of high cholesterol is a condition called Atherosclerosis where constant dumping of cholesterol on the walls of the arteries causes them to become narrower, thereby reducing and eventually cutting off blood flow, which can lead to a heart attack or stroke.

## **Ways to lower your cholesterol**

It's fairly easy to lower your blood cholesterol. Just eat more foods low in saturated fat and cholesterol and cut down on high-fat ones, especially those high in saturated fats. Fibre also helps as it acts like a sponge to pull the LDL out of your bloodstream. Exercise is also important. Here are some simple daily guidelines:

- Eat a wide variety of foods low in saturated fat and cholesterol.
- Eat at least five servings of fruits and vegetables every day.
- Eat six or more servings of cereals, breads, pasta and other whole-grain products.
- Eat foods that are high in fibre - total fibre should be 20-25g/day.
- Eat fish, poultry without skin and leaner cuts of meat instead of fatty ones.
- Eat fat-free or 1% milk dairy products rather than whole-milk dairy products.
- Enjoy 30-60 minutes of vigorous activities on most (or all) days of the week.
- Maintain a healthy weight.

The table below shows the available food choices for different types of fats based on how they affect total cholesterol and the good and bad types:

<b>Best Choice Monosaturated Fat</b>	<b>Good Choice Polyunsaturated Fat</b>	<b>Occasional Choice Saturated/Trans Fat</b>
<i>Effects on Cholesterol and Lipoproteins</i>	<i>Effects on Cholesterol and Lipoproteins</i>	<i>Effects on Cholesterol and Lipoproteins</i>
Decreases total cholesterol	Decreases total cholesterol	Increases total cholesterol
Decreases LDL-cholesterol	Decreases LDL-cholesterol	Increases LDL cholesterol
No effect on HDL-cholesterol	Decreases HDL-cholesterol	
<b>Food examples</b>	<b>Food examples</b>	<b>Food examples</b>
<b>Vegetable oils:</b> olive, avocado, canola, peanut	<b>Vegetable oils:</b> corn, safflower, sesame, sunflower, trans fat-free margarine, mayonnaise, miracle whip	<b>Vegetable oils:</b> coconut, palm kernel, cocoa butter  <b>Hydrogenated oils:</b> margarine, shortening
<b>Nuts:</b> acorns, almonds, beechnuts, cashews, chestnuts, hazelnuts, hickory, macadamia, peanut, peanuts, pecans, pecans, pistachios <b>Other:</b> fish fat (Omega-3 fatty acids)	<b>Nuts:</b> brazil, butternuts, pine, walnuts <b>Seeds:</b> sesame, pumpkin, sunflower	<b>Animal fats:</b> bacon, beef, chicken, lamb, pork fats, egg yolk, lard, pepperoni, processed meats, sausages <b>Dairy Products:</b> butter, cream, cheese (normal, light, low-fat), cream cheese, ice cream, sour cream, milk (whole, semi-skim), yoghurt