

Last Name:	Sample	Scan Date:
First Name:	Female	28-Aug-09
DOB:	31-Oct-77	
Sex:	F	

Total Body	metric	old school
Fat	10.6 kg	23.3 lbs
Lean	46.4 kg	102.4 lbs
Bone	2.2 kg	4.8 lbs
% Fat	17.9 %	17.9 %
Height	169.4 cm	66.7 in
Weight	59.2 kg	130.5 lbs

You have 17.9 percent body fat.

Summary:

At this % body fat you are in the Fitness range for females under the age of 40.

Specifics:

Arms

You have more muscle mass in your right arm relative to your left arm.

Legs

You have a significant difference in the muscle mass in your right leg relative to your left leg. The asymmetry in your lower limbs is significant and may indicate potential for risk of injury due to muscular imbalance. Optimal health and performance in work, life and sport activities are best achieved through a balanced muscular system.

Resting Metabolic Rate:

Based on lean tissue mass*, your resting metabolic rate is:

1420 calories

Your daily caloric need is based on your resting metabolic rate and the appropriate activity factor.

Activity Level	Factor	Daily Caloric Need**	Calorie range to safely lose weight	
Sedentary	1.2	1704	1363	1448
Light	1.375	1952	1562	1660
Moderate	1.55	2201	1761	1871
Very	1.725	2449	1959	2082
Extreme	1.9	2698	2158	2293

Definitions of Activity Levels

Activity Level

Sedentary	little or no exercise – desk job
Light	light exercise or sport 1-3 days/wk
Moderate	moderate exercise or sport 3-5 days/wk
Very	hard exercise or sport 6-7 days/wk
Extreme	hard daily exercise or sports and a physical job or 2x training

* Katch-McArdle formula

** This is the caloric requirement of your body based on your current muscle mass.

Zone portions based on your Lean Body Mass*

Your LEAN BODY MASS is 102 pounds.

Activity Level	Factor	daily caloric need**	grams		
			of protein	grams of carbs	grams of fat
Sedentary	1.2	1704	127.8	170.4	56.8
Light	1.375	1952	146.4	195.2	65.1
Moderate	1.55	2201	165.1	220.1	73.4
Very	1.725	2449	183.7	244.9	81.6
Extreme	1.9	2698	202.3	269.8	89.9
		percentage of calories	30%	40%	30%

* Based on "The Zone Diet" by Sears.

We suggest trying to eat a diet consisting of vegetables, meat, fish, poultry, nuts and seeds, some fruit, little starch and no sugar.

Bodycomp Imaging Inc.

#700-890 W Pender St.

Vancouver, BC V6C 1J9

Telephone: 604.689.1911

E-Mail: info@bodycomp.ca

Sex: Female

Height: 169.4 cm

Weight:

Age: 31

DOB: October 31, 1977

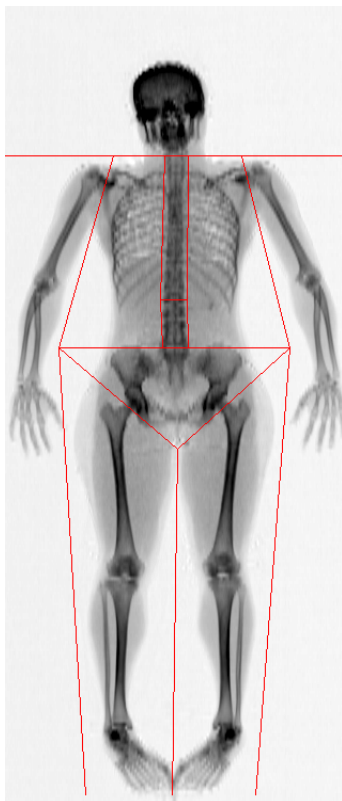


Image not for diagnostic use
k = 1.182, d0 = 47.8
318 x 150

Scan Information:

Scan Date: August 28, 2009

ID: A08280903

Scan Type: a Whole Body

Analysis: August 28, 2009 11:07 Version 12.4:5

Auto Whole Body

Operator: PS

Model: Discovery Wi (S/N 81837)

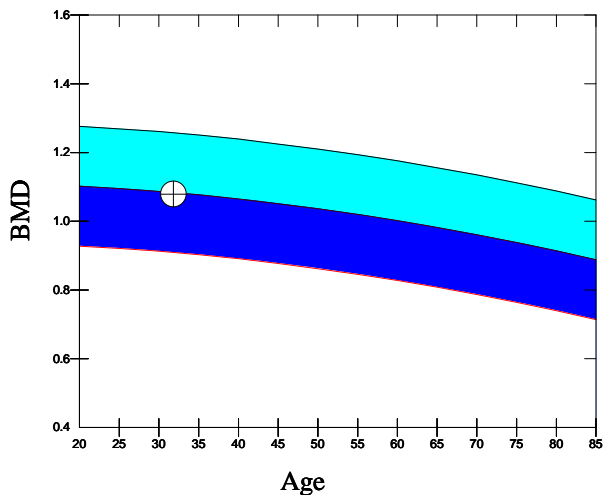
Comment:

DXA Results Summary:

Region	Area (cm ²)	BMC (g)	BMD (g/cm ²)	T - Score	Z - Score
L Arm	189.68	130.82	0.690		
R Arm	205.62	141.37	0.688		
L Ribs	106.50	68.25	0.641		
R Ribs	127.88	77.73	0.608		
T Spine	141.48	129.22	0.913		
L Spine	51.70	56.10	1.085		
Pelvis	236.71	250.29	1.057		
L Leg	347.49	417.56	1.202		
R Leg	357.98	405.46	1.133		
Subtotal	1765.03	1676.79	0.950		
Head	237.49	484.10	2.038		
Total	2002.52	2160.89	1.079	-0.3	-0.0

Total BMD CV 1.0%, ACF = 1.025, BCF = 0.999

Total



Reference curve and scores matched to White Female

Source: Hologic

Physician's Comment:

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Comment:

DXA Results Summary:

Region	BMC (g)	Fat (g)	Lean (g)	Lean+BMC (g)	Total Mass (g)	% Fat
L Arm	130.82	550.9	2402.8	2533.6	3084.5	17.9
R Arm	141.37	402.1	2643.6	2784.9	3187.1	12.6
Trunk	581.59	3602.5	20505.8	21087.4	24689.9	14.6
L Leg	417.56	2612.0	8509.4	8927.0	11539.0	22.6
R Leg	405.46	2593.1	9203.4	9608.9	12201.9	21.3
Subtotal	1676.79	9760.6	43265.0	44941.8	54702.3	17.8
Head	484.10	814.1	3181.3	3665.4	4479.5	18.2
Total	2160.89	10574.6	46446.3	48607.2	59181.9	17.9

TBAR3650

Body Fat Standards

The American College of Sport's Medicine developed the following reference ranges based on research.

	Age	Women	Men
Health Standards *	<40 yrs.	20-35%	8-22%
	>40 yrs.	25-38%	10-25%
Fitness Standards *	<40 yrs.	16-28%	5-15%
	>40 yrs.	20-33%	7-18%
High Risk *			
Inadequate fat	all adults	<12-14%	<3-5%
Obesity	<40 yrs.	>35%	>22%
	>40 yrs.	>38%	>25%

- "Health standards" reflect the percent of body fat that generally does not increase your risk for health problems. Excessive body fat, especially around the abdomen, can increase your risk for high blood pressure, diabetes, osteoarthritis, and heart disease. Young men who have greater than 22% body fat and young women who have greater than 35% body fat may be at greater risk for these health problems, independent of their eating, activity, and other lifestyle behaviors.
- "Fitness standards" reflect the percent of body fat that generally results from greater physical training. A greater percentage of muscle and lower percentage of fat may improve strength, speed, endurance, and agility. However, dropping below 16% body fat for women and 5% body fat for men DOES NOT further increase your athletic performance or level of fitness. Instead, too low body fat can actually impair your physical health and performance. Men and women need a certain amount of body fat to insulate vital organs, regulate body temperature, and ensure adequate production of sex hormones. In particular, women who restrict calories and exercise excessively may have a very low percentage of body fat and consequently have very low estrogen levels and stop menstruating. Because estrogen keeps women's bones strong, women who stop menstruating are at much greater risk for stress fractures and a debilitating bone-thinning disease called osteoporosis.

Interpreting the results of your Bodycomp scan

Congratulations on completing your whole body DXA scan. Body composition is a better indicator of your health and fitness status than body weight, as it looks at how much muscle and fat you have, not just what they weigh together. While it is interesting to see how your values compare against the normal population, try to focus on the changes that you can achieve with your own values. Percent body fat does not necessarily tell you how healthy or fit you are, but is one of the better figures to use in tracking your personal progress.

Terminology of the Bodycomp printout

DXA - dual energy x-ray absorptiometry – the process that allows our images and data to be produced. Refers to passing a small amount of x-rays of two energy levels through the body and measuring how well they transmit through tissue.

Lean mass - the sum of all muscle and soft organ tissue as seen by the DXA scanner.

Fat mass - this value includes all of the fatty tissue in the body, including the fatty tissue found within the organs of the body as well as the subcutaneous fat found under the skin.

BMC - bone mineral content – the sum of all skeletal tissue within the body.

Lean+BMC - the sum of lean and BMC mass - a quick assessment of change over time, as the bone mineral content is relatively constant over time. This presents the data as a two compartment model, allowing quick comparisons to be made between scans.

BMD - bone mineral density – the amount of bone mineral content within a certain area.

Percent fat - the ratio of fatty tissue to total body tissue. This value is calculated as follows:

$$\% \text{ fat} = \frac{\text{Fat (g)}}{\text{Total mass (g)}} \times 100$$

Region - an area that is defined by the technologist. This allows us to produce values for individual regions, such as a left arm or leg, in addition to the whole body results.

Three compartment model - this describes how DXA differentiates the body into three sub-types of tissue. They are bone, lean and fat mass. Most methods of body composition analysis such as BIA and underwater weighing use a two compartment model that only classifies the body as having fat mass and fat-free mass (FFM).

Artifact - a structure or feature not normally present but visible within the image, due to either physical objects or client motion.