



Chatswood Densitometry Centre

Suite 7-8, 16-18 Malvern Ave, Chatswood 2067. Telephone 94111837 Facsimile 94112015

DXA Body Composition: Sunday, 28 February 2016

Results below are from scans obtained on 6/05/2015 using a Lunar Prodigy DXA scanner (s/ware14.10).

Patient Details:

Name: Example 2 Body composition **Height:** 170.0 cm **Date of Birth:** 1/02/1981
Gender: Male **Weight:** 65.0 kg

LEAN

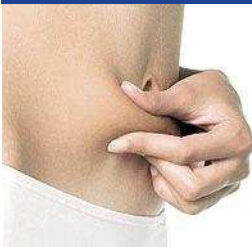


DXA lean mass includes all soft tissue parts of the body [organs, muscle, and fluids] but excludes body fat (and bone).

The higher the Tissue %Lean, the more muscular the body.

Total Mass:	65.3 kg
Lean Mass:	49,088 g
Tissue %Lean:	75.2%

FAT



Fat Mass Index Male Classification

Fat Mass Deficit			
Severe Below 2.0	Moderate 2.0 to 2.3	Mild 2.3 to 3	
Normal 3 to 6			
Excess Fat			
Excess Fat 6 to 9	Obese 1 9 to 12	Obese 2 12 to 15	Obese 3 Over 15

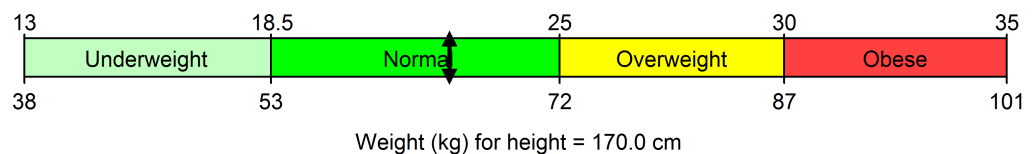
Results

Fat Mass:	13,726 g
Tissue (%Fat)	21.9%
Fat Mass Index	4.75

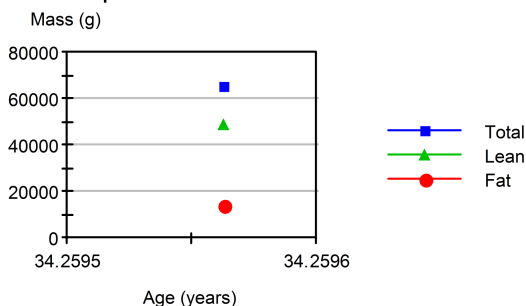
Fat Mass Index (FMI) = Fat / (height metres)²
 There is currently no generally accepted classification of normal or obesity based on Fat Mass Index. The classification shown is from the NHANES population study (USA).

World Health Organization BMI Classification

BMI = 22.5 (kg/m²)



Composition Trend: Total



Date	Age	Total Mass (kg)	Lean Mass (g)	Fat Mass (g)
6/05/2015	34.2	65.3	49,088	13,726



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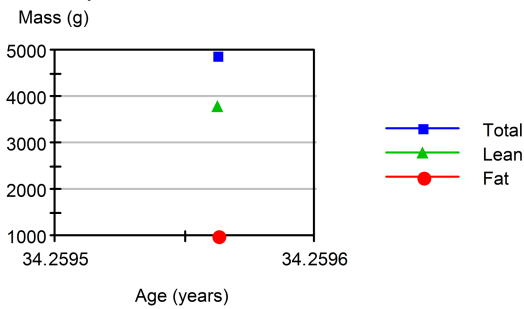
ANDROID / GYNOID (waist / hip)



The body type with increased abdominal "android" fat is described as "apple shaped." The body type with increased hip and thigh "gynoid" fat is described as "pear shaped.". Where fat is stored is an important predictor of the potential health risks of obesity. While Total Body % Fat will tell you more about your overall fitness than your weight alone, regional fat distribution tells you where the fat is located. Increased Android /Gynoid ratio is associated with increased risk of disease.

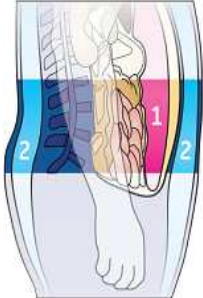
Region	Tissue %Fat
Android:	21.1%
Gynoid:	22.8%
A/G Ratio:	0.93

Composition Trend: Android



Date	Age	Android Mass (kg)	Android Lean (g)	Android Fat (g)	Android %Fat	Gynoid %Fat	A/G Ratio
6/05/2015	34.2	4.9	3,792	1,017	21.1	22.8	0.93

Abdominal Fat and Visceral Adipose Tissue



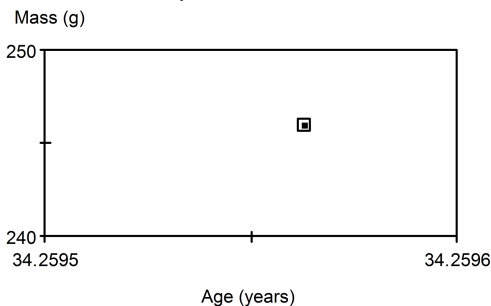
Adipose Tissue
 1 Visceral
 2 Subcutaneous

VAT (visceral adipose tissue) is similar to the Android/Gynoid ratio and estimates the fat within the abdomen which is associated with obesity, heart disease and type 2 diabetes. The VAT estimates have been validated between ages 18 to 90 in the BMI range 18.5 to 40.

Region	Tissue %Fat
VAT Volume:	260 cm ³
VAT Mass:	246 g

Visceral Adipose Tissue Trend

Composition Trend: VAT



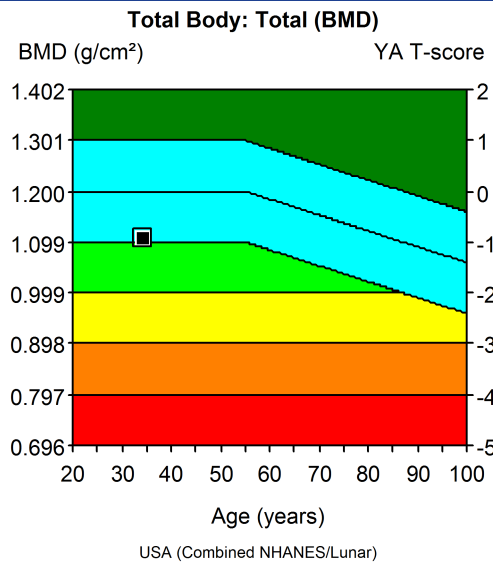
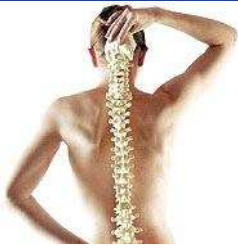
Date	Age	Fat Mass (g)	Volume (cm ³)
6/05/2015	34.2	246	260



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BONE



Age	BMD (g/cm ²)	T-score	Z-score	Centile
34.2	1.108	-0.9	-0.9	18

Whole body Bone Mineral Density (BMD) is compared to the "young adult" average peak bone density - T-score. It is also compared to the results of people of your same age, called "age-matched", displayed as your Z-score. **Whole body BMD is not used to diagnose osteoporosis. Instead osteoporosis is best diagnosed from BMD in the spine and hip.**

RESTING METABOLIC RATE (RMR)



Resting Metabolic Rate (RMR) is synonymous with Resting Energy Expenditure (REE) and is an estimate of how many calories you would burn if you were to do nothing but rest. It represents the minimum amount of energy needed to maintain body temperature, heartbeat, and respiratory rate.

RMR: 1,428 cal/day

*RMR (Resting Metabolic Rate) based on Mifflin-St Jeor equation.
 $RMR = 19.7 \times FFM(\text{fat free mass}) + 413$
 Mifflin MD, St Jeor ST, Hill LA, Scott BJ, Daugherty SA, Koh YO. A new predictive equation for resting energy expenditure in healthy individuals., Am J Clin Nutr., 1990 Feb;51(2):241-7. PMID: 2305711*

RELATIVE SKELETAL MUSCLE INDEX (RSMI)



RSMI represents the relative amount of muscle in the arms and legs.

RSMI: 7.66 kg/m²

*RSMI (Relative Skeletal Muscle Index) based on Baumgartner equation.
 $RSMI = (\text{lean mass of arms}[\text{kg}] + \text{lean mass of legs}[\text{kg}]) / (\text{height}[\text{m}])^2$
 Baumgartner RN, Koehler KM, Gallagher D, Romero L, Heymsfield SB, Ross RR, Garry PJ, Lindeman RD (1998) Epidemiology of sarcopenia among the elderly in New Mexico. Am J Epidemiol 147(8):755-763.*