

Body Composition Profile With MRI

At Mayfair Diagnostics we offer private pay body composition profile (BCP) services using our MRI technology and an artificial intelligence and bioinformatics platform from AMRA[®].

Personalized Clinical Care

BCP provides an individualized description of a person's body composition based on a rapid MRI scan. This allows for a greater understanding of the patient and the ability to personalize clinical care. It provides a greater depth of information than body mass index (BMI), allowing precise differentiation of tissue type and compartment.

The BCP MRI scan quantifies fat and muscle composition in major body and organ compartments: visceral adipose tissue (visceral fat), abdominal subcutaneous adipose tissue (subcutaneous fat), liver fat, muscle volume, and muscle fat infiltration – a strong predictor of function and longevity¹.

1. Linge J, et al. (2021) Adverse muscle composition predicts all-cause mortality in the UK Biobank imaging study. *JCSM*, 12(6):1513-1526.

COMPARISON OF BMI AND BCP INFORMATION

An increase in visceral fat can lead to increased health risks, specifically for diabetes and heart disease².

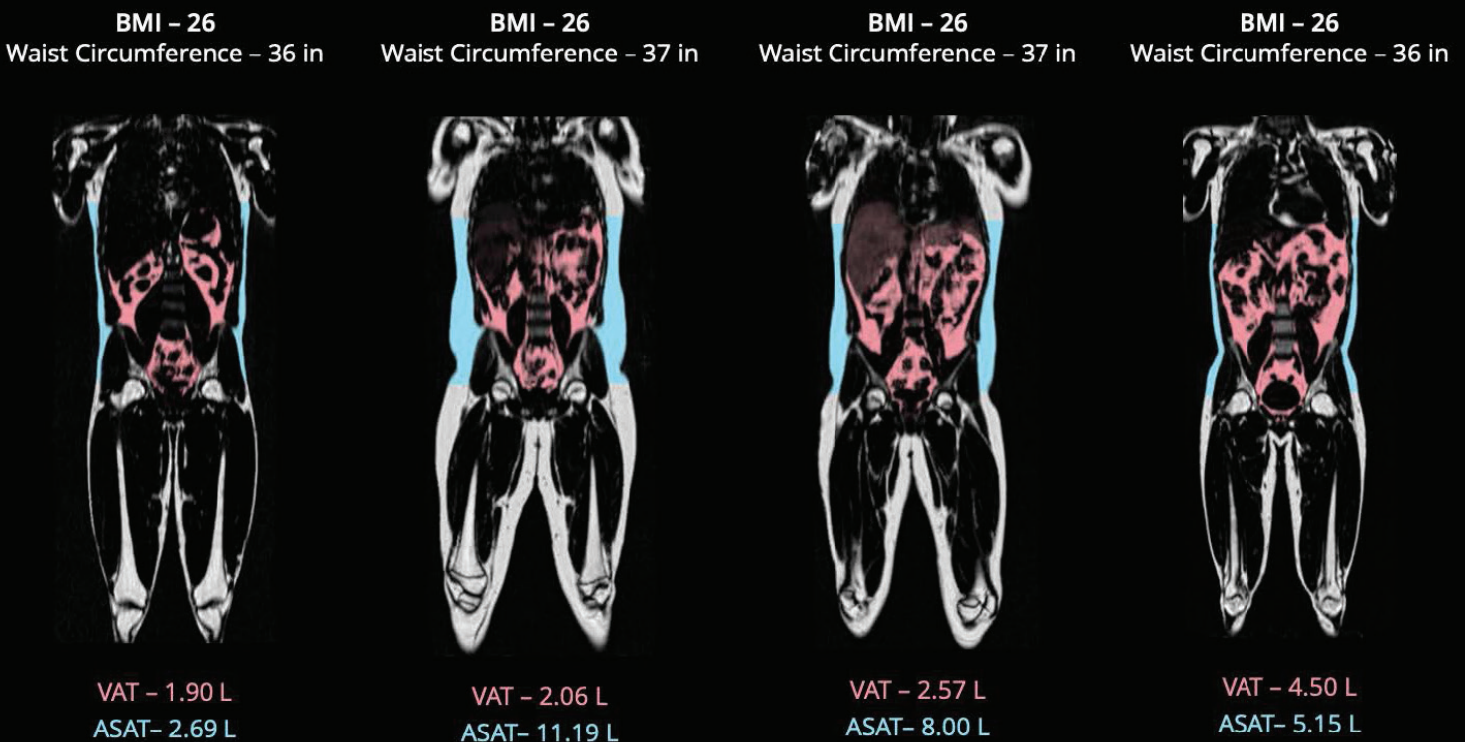


Image courtesy of AMRA

LEGEND

➡ **BMI**

Body Mass Index

➡ **VAT**

Visceral Adipose Tissue (Visceral Fat)

➡ **ASAT**

Abdominal Subcutaneous Adipose Tissue (Subcutaneous Fat)

Comparison of BCP to Other Techniques

	BIA	DXA	CT	BCP MRI
Total Fat	●	●	●	●
Total Lean	●	●	●	●
VAT		●	●	●
Individual Muscles			●	●
Muscle Fat Infiltration			●	●
Liver Fat			●	●
Ionizing Radiation		●	●	●

LEGEND

➔ BIA Bioelectrical Impedance Analysis	➔ DXA Dual-energy X-ray Absorptiometry	➔ CT Computed Tomography	➔ MRI Magnetic Resonance Imaging
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Of the available body composition measurement tools, only BCP MRI is able to provide accurate quantification of total fat volume, detailed fat biodistribution, and information regarding muscle volume and quality, without the use of ionizing radiation.

BCP MRI with Mayfair

As part of this exam, Mayfair Diagnostics will perform a neck-to-knee MRI scan at our Mayfair Place location. Once data processing with AMRA® is complete, it is verified by a radiologist who will also review all acquired imaging and generate a report to be provided within five business days.

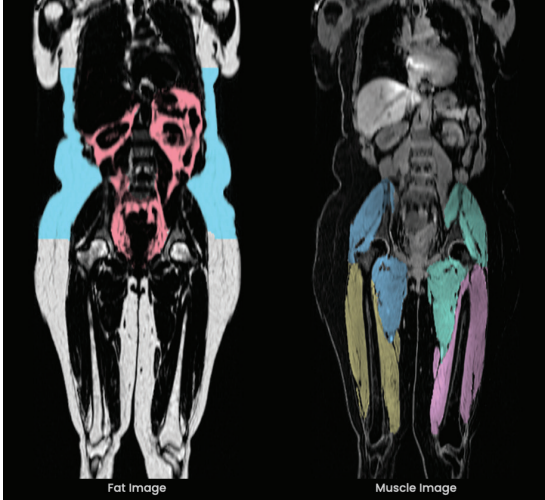
This report will provide patient-specific body composition profile measurements and comparisons to reference data ranges, giving context to the results. Each measurement is visualized in a bar plot, where the patient is presented in relation to the distribution within a body-size and sex-specific reference population.

Please note, BCP MRI services are offered as private pay services only. They are not covered by the Alberta Health Care Insurance Plan.

For inquiries about pricing:

- **Email:** bd@radiology.ca
- **Website:** www.radiology.ca/services/magnetic-resonance-imaging-mri/

BCP MRI Scan Report Example

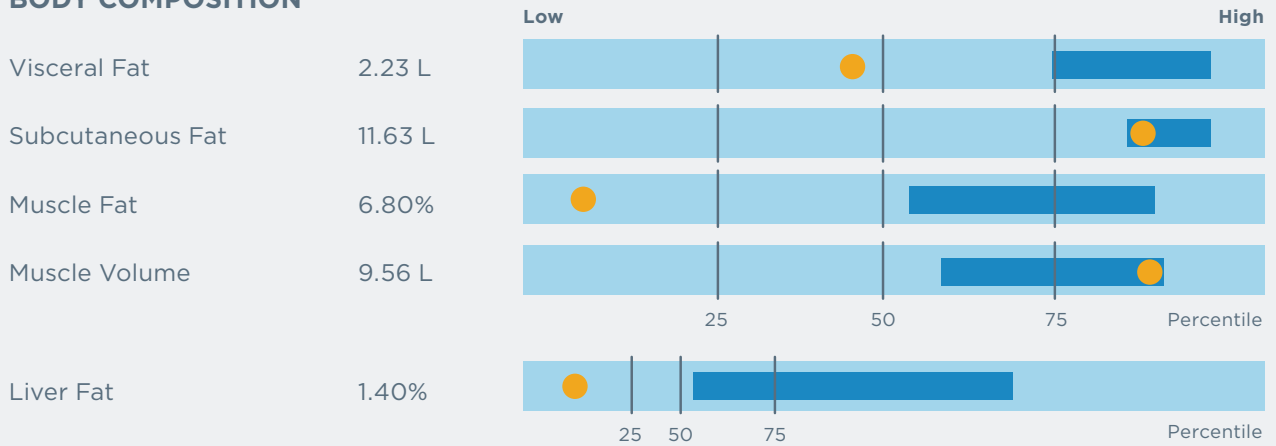


Patient ID: xxxxxxxx
Acquisition Date: YYYY-MM-DD
Sex: Female **Height:** 1.65m **Age:** 55 years
Weight: 88.9 kg **BMI:** 32.7 kg/m²

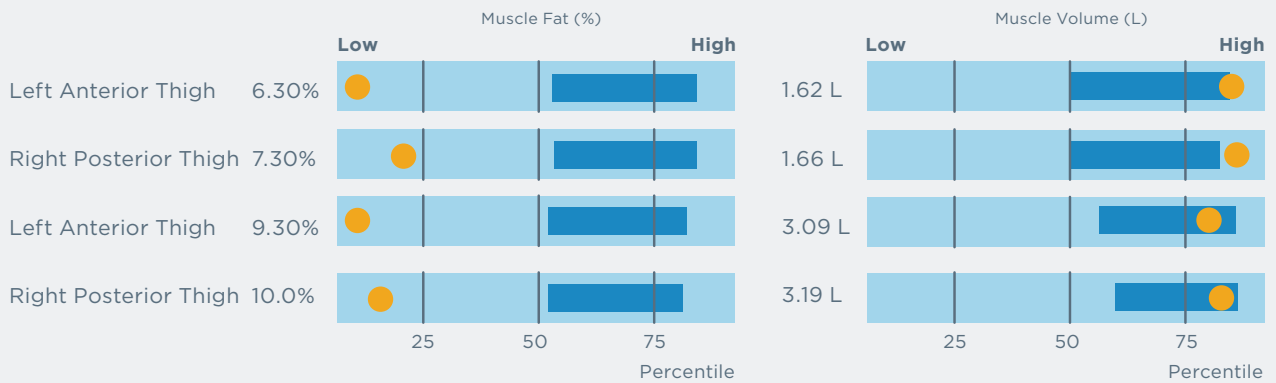
IMAGE LEGEND

- Visceral Fat
- Subcutaneous Fat
- Left Anterior Thigh Muscle
- Right Anterior Thigh Muscle
- Left Posterior Thigh Muscle
- Right Posterior Thigh Muscle

BODY COMPOSITION



DETAILED MUSCLE COMPOSITION



BAR CHART LEGEND

● Patient Expected, given patient's sex and body size