DEXA Body Composition Assessment - Information Sheet

Please take the time to read the information provided prior to answering questions and consenting to a DEXA Body Composition assessment, any queries contact Tony on 0409647886.

What is a DEXA?
DEXA stands for Dual energy X-ray absorptiometry (previously known as DXA) and is a technique of measuring body composition including bone mineral density (BMD), body fat and lean muscle mass.

DEXA for Athletes
DEXA yields precise Bone, Muscle and Fat specifics for every area of the body. Athletes are constantly looking for the perfect fat mass to muscle ratio in order to optimize their performance.

• Our scans have the advantage of not only providing a current percentage of body fat for whole body, as well as up to 15 regions.
• Having body composition monitored periodically with DEXA will provide valuable feedback on how successful your diet and training have been towards achieving your goals.
• Additional scans can be performed to monitor rehabilitation from injury.

How does DEXA work?
• When an x-ray beam containing both high and low energies passes through soft tissue, the amount each energy is absorbed can be used to determine how many grams of fat and lean mass are present.
• A given dual energy absorption corresponds to a unique amount of fat and lean mass.

Is DEXA Safe?
Body DEXA FIT utilizes the Hologic Discovery Advanced, State-of-the-Art DEXA whole body scanner.

A DEXA scan is very safe, and there are no complications associated with the procedure. The radiation doses are very low, which, in fact, is less than one days’ exposure to natural background radiation. The average person in Australia receives about 1500 microsieverts every year from natural background radiation. The amount of radiation received from DEXA scan is approximately 4 microsieverts of radiation, which is well below the International Commission on Radiological Protection (ICRP) limit of 1000 microsieverts per annum (over and above natural background).

Who can operate a DEXA scan?
The operator for the DEXA scan is a Radiographer who is University trained, licensed with Department of Health and with the Medical Radiation Practice Board of Australia and accredited with Australian Institute of Radiography. The guidelines and protocols of a DEXA scan are approved and justified by a Radiation Medical Practitioner.

Preparation for DEXA
• It is helpful to wear clothing which is loose fitting and free of metallic attachments such as buttons, zippers, buckles, wired bras and fasteners. You must NOTIFY the Radiographer if you are under 18 yrs of age or think you could be PREGNANT.
• DO NOT schedule your Dexa scan within one week of having a barium x-ray, a nuclear medicine study or an injection of x-ray dye.
• Consistent preparation of the patient is important for precise measures (Prior to scan on the day, empty bladder and avoid heavy meal and high intensity physical activity).

Procedure It is a simple and fast procedure, involving no injections and is not painful. Prior to the test, both your height and weight will be measured. You are then required to lie face up on a padded table for a short time. The scan normally takes 3 minutes.
What is Body Composition?
The term body composition describes the various components that make up a person’s body, typically the bone, lean tissue and fat tissue. The lean tissue includes water, proteins, glycogen & soft tissue minerals.

DEXA body composition scan will tell you:
- Your total body fat percentage (%);
- Total body muscle (lean) mass (g);
- Total body fat mass (g);
- Muscle and fat mass (g) of each leg, each arm, trunk, abdomen and head;
- Total bone mineral density (non-diagnostic);
- Android/Gynoid fat distribution;
- Estimated Visceral Fat threshold

What is the purpose of measuring body composition and body fat?
- Identify health risk associated with excessively low or high levels of total fat
- Identify health risk associated with excessive accumulation of intra-abdominal fat
- Determine ideal body weight
- Design diet and exercise recommendations
- Assess the effectiveness of nutrition and exercise interventions in altering body composition

What is the advantage of our DEXA scanner compared to other scanners?
- Faster scan time: up to 3 minutes
- 216 detectors - more data samples for improved Image quality
- Highly precise - Body composition reference data
- Very low radiation
- High table weight limit - 204kg
- Higher energy for better penetration of large subjects

Accuracy & Calibration
These days medical technology needs to be fast, accurate and reliable. Discovery body composition results have been calibrated to a large multi-center study between DEXA and several other body composition techniques including deuterium dilution, hydrostatic weighing, and 4-compartment models. The results of this study found that previous methods underestimated body fat by 4-5 %, while overestimating lean body mass by the same factor. The Discovery advanced whole body scanners use the latest APEX software, which has now incorporated this updated National Health and Nutrition Examination Survey Body Composition Assessment (NHANES BCA) calibration.

Diagnostic Information and Reference Data
Diagnostic information is obtained by direct comparison to a gender and ethnicity specific reference data developed from NHANES data released on the Centre for Disease Control website. The NHANES body composition reference database represents one of the largest peer-reviewed studies ever undertaken and assures reliable results for all body composition measures. The NHANES database uses statistical analysis methods which account for “skewed” (non-symmetrical) distribution of body composition measurements. What does this mean? It means greater accuracy, validity, and clinical usefulness of results, than has previously been available. Competitive DEXA systems do not account for skewness and therefore the diagnostic scores they provide may be unreliable.

Registration & Consent form

Your privacy is important to us. The information we collect enables Body DEXA fit to provide you with a high quality service. We ask that you provide us with accurate and complete information so that we are able to correctly identify you. We have a legal obligation to adhere to all relevant privacy legislation and to keep information about you confidential. If you have any questions about privacy and what happens to your information, please contact us on (03) 9374 3392.

Section A: Personal details

First name: ___________________________  Last name: ___________________________
Date of birth: _____/_____ /_____                Age ______ yrs old                Gender: [ ] Male   [ ] Female
Occupation: ________________________            Fitness Centre you attend: ________________________

Section B: Questionnaire – Medical Information

For women, Is there a possibility that you could be pregnant?  [ ] YES  [ ] NO

Please list existing medical conditions and any prescription medications you are now taking

List any surgeries

How would you rate your activity level?  (Activity level = activity factor x basal metabolic rate)
[ ] Sedentary = BMR X 1.2 (little or no exercise, desk job)
[ ] Lightly active = BMR X 1.375 (light exercise or sports 1-3 days/wk)
[ ] Mod. active = BMR X 1.55 (moderate exercise or sports 3-5 days/wk)
[ ] Very active = BMR X 1.725 (hard exercise or sports 6-7 days/wk)
[ ] Extremely Active = BMR X 1.9 (hard daily exercise or sports & physical job or 2 X day training)

Section C (DEXA scan only):
Under current rules we can only provide a DEXA scan if one of the following applies to you, please select the reason:

[ ] Fat loss: Patient is following a diet and exercise programme where a whole body composition scan may provide the information required to tailor their programme to ensure they maintain healthy levels of body fat, avoid muscle wastage, remain healthy and prevent injury and predict cardiometabolic risk.
[ ] Sports performance: Patient is involved in sport where a whole body composition scan may provide them with relevant information to allow them to change their training and dietary needs to ensure they maintain healthy levels of body fat, remain healthy and prevent injury.
[ ] Other: refer to referral slip  [ ] Not applicable

CONSENT FOR DEXA SCAN ONLY

I have read the information & what DEXA Body Composition Assessment entails and have had the opportunity to ask questions which have been answered to my satisfaction. I have not had a barium x-ray, nuclear medicine scan or injection of an X-ray dye in the last week. I will not have any trouble remaining motionless during the 3 min. scan. I understand the radiation dosage associated with the scan being undertaken is very low and approximately equivalent to 1/3 the natural radiation received in an aircraft flight from Melbourne to Sydney. I confirm there is no chance of being pregnant and consent for this procedure to be performed.

Signature: …………………………………………………………… Date: ……../……../………

Would you like to purchase the myDNA Diet, Fitness & Caffeine Report for $99 (valued at $198)  [ ] YES  [ ] NO

Section D: Questionnaire – Metabolic Testing Only

Reason for visit  [ ] Fatigue/energy issues  [ ] Weight issues  [ ] Sleep issues  [ ] Health  [ ] Other

During the past year has your weight [ ] Increased  [ ] Decreased  [ ] Stayed the same

Have you eaten or had coffee, tea or soft drink in the past 4 hrs?  [ ] YES  [ ] NO

Have you fasted for more than 12 hrs?  [ ] YES  [ ] NO

Are you eating a very low carbohydrate or ketogenic diet?  [ ] YES  [ ] NO

Have you performed sustained high intensity exercise in the last 24 hrs?  [ ] YES  [ ] NO

OFFICE USE ONLY  Weight (kg) ______      Height (cm)_______

[ ] Nil Contraindications, Consent form signed, Client Identification verified, checked by Tony Eid (Medical Radiographer/Cert. Clinical Bone Densitometry) & approved by Dr Janet MacIntosh (Medical Radiation Practitioner – Radiologist / Bsc (Hons) PhD Bmed FRANZCR)