

METABOLIC TESTING

BACKGROUND TO METABOLIC TESTING

Energy production (metabolism) drives every action within the human body and is vital to sustain life. Compromised energy production can lead to a range of common energy disorders, including chronic fatigue, obesity, diabetes and metabolic syndrome, which now affect 1 in 2 Australians. These issues have led to a growing need to accurately assess metabolism, which we have been able to do for you using validated and standardised technologies.

ECAL is a portable indirect calorimeter, which is used to measure human metabolism. An Indirect Calorimeter is considered the gold standard for measuring metabolic rate, however, due to the considerable cost and difficulty of use, the technology has only been available for elite athletes, researchers and critical care hospital departments. However, the development of ECAL enables this technology to be available for you.

Information gathered from ECAL includes your daily energy requirement at rest in calories, which source this energy is being produced from (fat or carbohydrate) and the efficiency with which you use oxygen.

ECAL involves a 5-10 minute breath analysis, in a relaxed sitting position. After entering some personal details we will ask you to put a mouthpiece in and nose plug on. During the test we would like you to relax and breathe as normally as possible through the mouthpiece.

Key parameters assessed are listed below and allows your practitioners to individualise your programmes based on your unique metabolism.

- Resting Metabolic Rate (Calories) - Is your metabolism fast or slow?
- Fuel Utilisation (Fat vs Glucose) - Are you burning the right fuels for weight loss?
- Energy Efficiency (%) - How efficient are your cells?

HOW SHOULD YOU PREPARE FOR THE TEST

In order for you to get the most out of your visit please remember to follow the points listed below:

Do:

- e* Take all prescribed medications as per normal
- e* If you are unwell please contact the centre to re-book your appointment
- e* Wear comfortable, casual clothing and bring a drink bottle
- e* Leave any distractions at home (mobile phones, children) as we need you to be as relaxed as possible during your test
- e* Bring with you to the appointment any bloods, investigations and medication lists.
- e* Void bladder before appointment
- e* Arrive 10 minutes before your scheduled appointment time

Don't:

- e* Consume any foods or fluids (except water) for a **minimum** of **4** hours prior to your appointment [It is recommended that you **fast no longer** than **12** hours. If on insulin adjust accordingly].
- e* Consume alcohol for 12 hours prior to your appointment
- e* Perform any strenuous exercise for 12 hours prior to your appointment
- e* Have any stimulants (caffeine, cigarettes) for 4 hours prior to your appointment
- e* Bath/Shower in hot water for 4 hours prior to your appointment

CONFIDENTIAL CLIENT RECORD

Date: _____

First name: _____

Last name: _____

Date of birth: _____

Age: _____

Occupation: _____

Gender: Male Female

Reason for Test? Fatigue/Energy Weight Loss Sleep Health Other _____

During the past year has your weight: Increased Decreased Stayed the same

How often do you: *(please tick those which apply to you)*

Eat breakfast? Every day Most days Hardly ever Never

Miss meals? Every day Most days Hardly ever Never

Exercise? Every day Most days Hardly ever Never

Drink Alcohol? Every day Most days Hardly ever Never

What type of exercise do you perform and how many minutes per week?

Cardio: _____

Weights: _____

Team Sports/Other: _____

Which of the following applies to you?

Smoker Wanting to quit Ex-smoker Non smoker

How do you rate you stress levels? (1-low, 3-moderate, 5-very high)

1 2 3 4 5

How do you rate your sleep patterns? (1-poor, 5-Good)

1 2 3 4 5

Any health problems? No

(please specify) Yes _____

Any medications/supplements? No

(please specify) Yes _____

PREVIOUS 24 HOURS EATING & EXERCISE:

To ensure your Energy Test gives you optimal results, please record anything that you have consumed in the last 24 hours, and any exercise that you may have done.

Meal 1	
Meal 2	
Meal 3	<i>(meal eaten closest to energy test)</i>
Snacks	
Drinks	<i>(Water, tea, coffee, soft drinks, alcohol, other)</i>
Exercise	<i>(including strenuous activity or any incidental exercise)</i>

GENERAL ENERGY QUESTIONNAIRE

To help us gain an understanding of your unique needs and history, please tick below as appropriate.

	Never	Sometimes	Often	Always
Do you wake up in the morning feeling tired?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you feel sleepy after eating a main meal?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you find it difficult to lose weight?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you regain weight quickly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you lack motivation to exercise on most days?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you forget things easily?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you have cold hands or feet?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you experience stomach bloating or indigestion?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are you told that you sleep loudly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you experience cravings for sweet foods?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you yawn after eating a main meal?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

ESSENTIAL FATTY ACIDS QUESTIONNAIRE

Essential fatty acids (omega 3's) are important nutrients required by the body.

The following questionnaire is designed to assess the possibility of a deficiency.

Please place a tick in one of the four boxes for each symptom.

0 = Never 1 = Occasionally 2 = Regularly 3 = Always

	0	1	2	3
Nails Breaking				
Dry itchy skin/rashes				
Flaky scalp				
Weak brittle hair				
Hair loss				
Dull skin				
Cracked peeling feet				
Fluid retention				
Mood swings				
Low libido				
Cravings for fats				
Unsatisfied hunger				
Excess body weight				
Carry weight around abdomen				
Stiff painful joints				
Morning stiffness				
Brain fog/Poor concentration				
Depression				
Females only				
PMS symptoms				
Sore breasts				
TOTAL				

Interpretation of Total Score

Low deficiency < 10
 Moderate deficiency 11 – 19
 High deficiency > 20