

REPORT INDEX

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Height: 5'-4" **Weight:** 132 lbs
Age: 22 **Activity Level:** Lightly Active

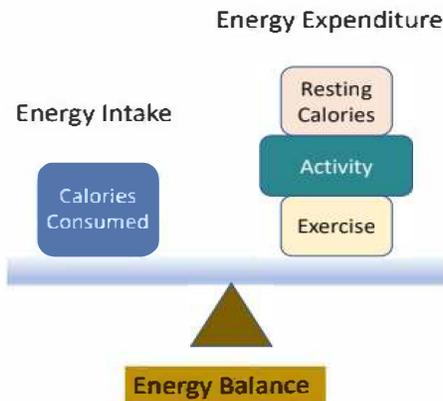
***Your next resting metabolic rate testing**
Time: _____ **Date:** _____

Patient ID: 10066 **DATE:** 12/02/2021
GOAL DATE _____ **GOAL WEIGHT:** _____

HEALTHCARE PROFESSIONAL

NAME: Ann Lee
FACILITY: _____

How Does Energy Balance Work?



Resting Metabolic Rate (RMR) or Resting Energy Expenditure (REE) is the rate at which your body burns calories at rest. This is the energy needed for all chemical reactions or processes that occur to maintain basic life. These values vary for different persons. RMR is affected by medical conditions, gender, genetic composition, body composition, and age. Accurate measurement of REE is essential for weight control, nutrition management, and obesity and related disease treatment. Total Energy Expenditure (TEE) is an estimation of how many calories you burn after activity level related to everyday work is factored. Tracking your REE over time will guide your metabolic adaptations.

Setting an exercise goal can significantly help you reach your weight gain or loss goals. Your healthcare professional may recommend walking, hiking, swimming, strength training, bike riding, and dancing. Try to find a form of physical activity that you enjoy and that suits your lifestyle.

How Can Exercise Help You Reach Your Goal?

Activity Goal

_____ Hours/week _____ Kcals (burned/day)

Is My REE Too High or Too Low?

There is no "typical" or "ideal" resting energy expenditure (REE). Your REE is unique to you. Your healthcare provider can use your personal REE to screen for changes in metabolism due to change in body composition or clinical status.

The table on Page 2 summarizes the parameters recorded after completion of a test with a Breezing Med/Pro metabolic tracker. You will likely see changes in REE if your weight increases or decreases and if you have started incorporating physical activity into your lifestyle.

Your Test Results

Variable	Unit	Test Results	Previous Results
Measured REE	Kcal/day	1642	3011
REE from MSJE ¹	Kcal/day	1331	1331
RQ ²	None	0.85	0.86
Estimated TEE ³	Kcal/day	2090	3834
VO ₂	mL/min	236	431
VCO ₂	mL/min	199	371
Exhalation Rate ⁴	mL/min	5253	11269
Breath Frequency	/min	13	17
Tidal Volume ⁵	mL	389	660

Notes:

1. REE from MSJE: REE calculated using Mifflin-St. Jeor metabolic equation.
 2. RQ: Respiratory Quotient
 3. Estimated TEE: Estimated total Energy expenditure.
 4. Exhalation Rate: Volume rate of air exhaled during the test.
 5. Tidal Volume - Volume of every breath (normal range for a resting and afebrile adult is 7–9 mL/kg or 3.2 – 4.1 mL/lb.)*
- * James R Sills. The Comprehensive Respiratory Therapist Exam Review.

The REE tested is 1642 Kcal/day. Related to body weight it is 27.4 kcal /day/kg. In this interval the mean VO₂ value is 236 mL/min, the mean VCO₂ value is 199 mL/min and the mean RQ value is 0.85. Refer to the RQ table below for the primary source of fuel your body is using to generate energy.

What is the Meaning of RQ?

The RQ is helpful in planning nutritional therapy. The physiologic RQ values are influenced by relative the contribution from fat, protein, and carbohydrate. RQ values for fat, protein, and carbohydrate are generally considered to be 0.7, 0.8, and 1.0, respectively. A RQ of >1.0 could suggest excessive carbohydrate calorie intake that can result in increased CO₂ production.

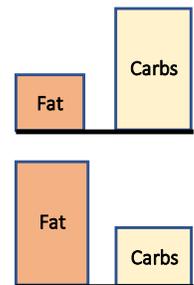
$$RQ = \text{CO}_2 \text{ produced} / \text{O}_2 \text{ consumed}$$

RQ Table for Reference Only

Source of Energy	RQ Value
Carbohydrate	> 0.95
Protein	0.8
Mixed Diet	0.85
Fat	< 0.7

(Source: Dietician's Handbook)

- RQ > 0.95 indicates the body is using predominantly carbohydrate by 80% or more.
- RQ equals 0.85, indicating the body is using a mixture of carbs and fats to generate energy.
- RQ < 0.7 indicates the body is using predominantly fat by 80% or more.



Metabolic adaptation

Know when you face metabolic adaptations by tracking your REE over time. To detect metabolic adaptations helps guide lifestyle changes that are conducive to sustainable healthy weight management. It is recommended that you set an appointment for retest REE after a month of being in your weight management plan or after losing 10% of your initial body weight.

Your Nutrition Diet Plan

Discuss your eating habits with your healthcare provider. It’s important to eat a variety of fruits, vegetables, grains, protein foods, dairy, and fortified soy alternatives. Choose options for meals, beverages, and snacks that have limited added sugars, saturated fat, and sodium. Utilize the link <https://www.myplate.gov/resources/tools/startsimple-myplate-app> to help you make changes as it simplifies healthy eating.

CALORIE BUDGET:	FAT CALORIES:
FAT (G):	CHOLESTEROL (MG):
SAT.FAT (G):	SUGAR (G):
CARBOHYDRATE (G):	FIBER (G):
PROTEIN (G):	IRON (G):
SODIUM (MG):	VITAMIN C (MG):
VITAMIN A (MG):	CALCIUM (MG):

Adjustment to Calorie Budget for Weight Gain:	
Adjustment to Calorie Budget for Weight Loss:	
Anticipated Weight Loss or Gain (lbs./week):	

Notes From Healthcare Professional

Notes: