

Introduction

Congratulations on purchasing the ThinnerGene customized weight loss program. We have personalized this program based on your DNA test results and your answers to our questionnaires. This program encompasses three major areas that can affect weight: diet, exercise and emotions.

According to our analysis, diet is the most important area for you to focus on, followed by exercise and emotions (Figure 1).

This document includes an overview of your program. You can find details on your diet plan in *Diet Plan...*, fitness plan in *Fitness Plan...* and emotion plan in *Emotion Plan...*

Since making a lot of changes all at once can be overwhelming, you may want to focus on one plan for a month and then move on to the next plan.

Figure 1 Priority Areas



Here is an overview of our assessment and suggestions for the diet, exercise and emotions plans. For more details review the detailed plans that are found in separate documents.

Table 1 Measurements

| Measurement | Results | Normal range | Goal |
|--|---------|--------------|------|
| BMI | | | |
| Waist | | | |
| Body Fat | | | |
| Calories to eat (1lb loss per week) | | ----- | |
| | | ----- | |

Table 2 Diet Plan Overview

| Area | Results | Suggestions |
|-----------------------|---|---|
| Nutrients | eat more ↑ | Complex Carbohydrates -fruits -vegetables -whole grains |
| Nutrients | eat less ↓ | Fats -high fat meat -high fat dairy -other oils Simple Sugars -desserts -soda -sugar, honey etc. -white rice, -white bread |
| Recommended Diet Plan | High Carb Low Fat | 55-60% complex carbohydrates, 15-25% protein and 20%-25% fats |
| Healthy Habits | Good | Week 1 Eat at least 1/2 plate fruit and veggies Week 4: Cook dinner at home one extra day |
| Calorie Control | Good | Week 2: Use a smaller plate at dinner |
| Fat Control | Good | Week 3: No high fat dairy |

Table 3 Fitness Plan Overview

| Assessment | Results | Interpretation |
|-----------------------------|---|---|
| Response to Exercise | Medium Responder | Exercise will be helpful for you to lose weight but an average fitness routine should be sufficient. |
| Endurance Aptitude | High | This means that you may have a higher potential to do well in endurance activities. Check out our list of endurance sports in Fitness Activity List ThinnerGene. You may want to train for an endurance event like a marathon or triathlon. |
| Strength Aptitude | Medium | This means that you are likely to have an average potential to do well at strength/power activities. |
| Fitness Plan | Level 1 for Medium Responder, High Endurance, Medium Strength | |

Table 4 Emotions Plan Overview

| Assessment | Result | Score Range | Interpretation | Suggestions |
|-------------------------------------|--------|-------------|--|---|
| Impact of Food Questionnaire | | 0-30 | emotional eater | Week 1: Emotional Eating Diary Week 2: Delay Indulging |
| Stress Questionnaire | | 6-30 | Very High | Week 1: Reduce your stressors Week 2: Do something you enjoy Week 3: Stress Buster Relaxation Quest |
| FTO variation 1 | | N/A | Does not seem to increase appetite or cravings for high calorie foods. | None |

Detailed DNA Testing Results

Your detailed DNA test results and how they affect your response to diet and exercise are presented in this section. Since your weight loss program is based on both an analysis of your combined DNA variations and the results of your questionnaire, the combined results may differ from the results of your DNA variations alone.

We have tested for variations that we feel have the most evidence and that allow us to make specific diet and or exercise recommendations. There may be other variations that we have not tested that may impact your weight and/or your response to exercise. There also may be other things in your environment that we can't account for that may be influencing your weight.

Table 5: DNA Test Results that Influence Your Response to Diet

This table shows how specific variations in your genes may impact your response to eating proteins, carbohydrates, fats and specifically unsaturated and monounsaturated fats. We have used the combination of these results to develop your diet plan which can be found in *Diet Plan...* You can find more information on genetics and gene variations in the document *Genetics 101...*

| Gene | Result | Research |
|-----------------------|--------|--|
| ADBR2 (variant 2) | | This variation may affect your response to carbohydrates. |
| BCAA associated PPM1K | | This variation may affect response to all fats. |
| FTO (variation 2) | | This variation doesn't appear to affect response to diet. |
| ADIPOQ | | This variation doesn't appear to affect response to diet. |
| FABP2 | | This variation doesn't appear to affect response to diet. |
| PPARG | | This variation may affect your response to all fats and particularly saturated fats. |
| IRS1 | | This variation may affect your response to carbohydrates. |
| APOA2 | | This variation doesn't appear to affect response to diet. |
| APOA5 | | This variation may affect response to all fats. |
| TCF7L2 | | This variation may make fiber beneficial. |
| PLIN | | This variation may affect your response to carbohydrates. |
| FTO (variation 1) | | This variation doesn't appear to affect response to diet. |

Table 6: DNA Test Results that Influence Your Response to Exercise

This table shows how specific variations in your genes may impact your response to exercise and whether you have an aptitude for endurance or strength activities. We have used the combination of these results to develop your fitness plan which can be found in *Fitness Plan...* You can find more information on genetics and gene variations in the document *Genetics 101...* which can be found in your private results area.

| Gene | Result | Research |
|-------------------|--------|--|
| ADRB2 (variant 1) | | This variation may make it easier for you to lose body fat through exercise. It may also increase your ability to do endurance sports. The increased endurance ability may be truer for men. |
| ADBR2 (variant 2) | | This variation may make it easier for you to lose body fat through exercise. It may also increase your ability to do endurance sports. |
| PPARG | | This variation doesn't appear to affect your exercise response or abilities. |
| ACTN3 | | This variation may increase your ability to do strength and power sports. Some world-class sprinters have this variation. |
| ADBR3 | | This variation doesn't appear to affect your exercise response or abilities. |
| FTO (variation 1) | | This variation doesn't appear to affect your exercise response or abilities. |

Are You at a healthy weight? (See table 1)

Measuring your BMI, body fat percentage and waist circumference can help you figure out if you are at a healthy weight. Since these measurements are not exact you should also take into consideration how you look and feel. If you are unsure you may want to consult with a dietitian or other health provider.

Your BMI is X and your body fat percentage is approximately X. Your BMI and your body fat percentage are above the normal range. If you want a more precise measure of your body fat then you should consult your health provider. Your waist measurement is X inches which is above the healthy range. Women should try to keep their waist below 31.5 inches as this has been associated with a lower risk of health problems

BMI Calculations

The formula for calculating your BMI = (weight in lbs) / (height in inches) X (height in inches) X 703

Remember that BMI ranges are only an approximation. For example, people with more muscle mass tend to have higher BMIs even when their body fat levels are normal. Also people who are smaller boned may have higher body fat levels even if they have a normal BMI.

Table 7: BMI ranges ¹

| BMI | Weight Status |
|----------------|---------------|
| Below 18.5 | Underweight |
| 18.5 - 24.9 | Normal |
| 25.0 - 29.9 | Overweight |
| 30.0 and Above | Obese |

Body Fat Calculations

Measuring your body fat can help indicate if you have a healthy percentage of fat vs muscle. When you lose weight you want to lose fat rather than muscle as that will help you look and feel better and stay healthy. If you are exercising a lot you may find that your weight and BMI stays the same or even increases even though you have lost body fat. Also sometimes your weight and BMI can be higher because you have gained water weight rather than fat.

The best way to estimate your body fat is to have it measured by a health professional. We estimated your body fat percentage by using the US Navy method². Calculating your body fat once a month can help you see if you are losing fat. If you are unable to do so through your health provider then you may want to use a calculator like this one: <http://www.spaplay.com/diet-fitness-assesments/calculate-your-body-fat/>. It is best to use the same calculator each time you measure your body fat.

Table 8: Body Fat Percentage Categories ³

| | Women | Men |
|---------------|----------------|----------------|
| Essential Fat | 10-13% | 2-5% |
| Athletes | 14-20% | 6-13% |
| Fitness | 21-24% | 14-17% |
| Acceptable | 25-31% | 18-24% |
| Obese | 32% and higher | 25% and higher |

¹ CDC. About BMI for Adults. http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/

² Department of Defense. Physical Fitness and Body Fat Programs Procedures. November 5, 2002. <http://www.dtic.mil/whs/directives/corres/pdf/130803p.pdf>

³ American Council on Exercise. What are the guidelines for percentage of body fat loss? December 2, 2009

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