



RAINIERMEDICAL

*weight loss* • HEALTH & FITNESS • *med Spa*

*Body Weight Regulation:*

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# A Calorie Is NOT A Calorie

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# Learning Objectives

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- ❖ Understand overweight / obesity as a chronic disease.
- ❖ Understand concept of a “weight set point”.
- ❖ Understand metabolic adaptation to weight change.
- ❖ Understand expected amount of weight loss from different approaches including diet, exercise, medication, or surgery.
- ❖ Understand expected benefits of dietary change, exercise, and weight loss.
- ❖ Understand strategies for weight regain prevention.

# Overweight/Obesity as a Chronic Disease

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- ❖ Not everyone has the same “metabolism.”
- ❖ Obesity is a spectrum of disease from mild to severe.
- ❖ There are many different forms of this disease, more aptly known as “obesities.”

# Overweight/Obesity as a Chronic Disease

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- ❖ Fat is metabolically active, causing a constellation of signs and symptoms in the rest of the body.
- ❖ Successful treatment needs to be individualized, comprehensive, and long term.

# Your Weight Set Point

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- ❖ Evolutionary advantage to maintaining a weight set point.
- ❖ Determined mostly by genetics and environment.
- ❖ Your weight history may reveal your weight set point and provide insight.



# Your Weight Set Point

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- ❖ Changes over time (10% per decade).
- ❖ Affected by various factors, such as medications, lifestyle, hormones, body composition changes, and other medical conditions.
- ❖ All weight changes tend to follow predictable curves *from your weight set-point.*
- ❖ Value and insight in determining your weight set-point for reference, rather than just a BMI chart.

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# Metabolic Adaptation to Weight Loss

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- ❖ Constellation of responses to a change from weight set point.
- ❖ Promote a return to the weight set-point.
- ❖ Increase / decrease of resting metabolic rate.
- ❖ Increase / decrease in hunger and cravings.
- ❖ Increase / decrease in satiety / satiation.

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# Metabolic Adaptation to Weight Loss

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- ❖ Last at least 12 months (longest studied), probably much longer.
- ❖ Seen regardless of how a person loses weight, whether surgical, medical, or lifestyle.
- ❖ Likely accounts for large portion of weight regain observed: 85% of people with lifestyle change, 45% with bariatric surgery.



# Expected Weight Loss

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- ❖ Exercise: not expected to cause weight loss.
- ❖ Dietary change: 5% over 1 year at a rate of one-half to one pound per week.
- ❖ Intensive lifestyle change: 5-10%
- ❖ Pharmacotherapy plus intensive lifestyle change: up to 27%
- ❖ Bariatric Surgery: up to 30%

# Examples - Weight Loss

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- ❖ Starting body weight: 250 lbs
- ❖ Dietary change: 237 lbs
- ❖ Intensive lifestyle change: 225 lbs
- ❖ Add anti obesity medication: 183 lbs
- ❖ Bariatric Surgery: 175 lbs

# Benefits of Diet, Exercise, Weight Loss

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- ❖ Nutrition quality improves metabolic health.
- ❖ Fitness improves adipocyte function.
- ❖ Weight loss:
  - ❖ 3-5%: various health benefits
  - ❖ 15%: reversal / remission of early type 2 diabetes
  - ❖ 25-30%: reversal / remission of more established type 2 diabetes

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# Weight Regain Prevention

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- ❖ National Weight Control Registry, Clinical trials
- ❖ Diet: structured, low variety, regimented
- ❖ Exercise: >60 minutes per day, most commonly walking
- ❖ Restaurant eating: <1 time per week
- ❖ Anti obesity pharmacotherapy
- ❖ Bariatric surgery revision

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