

# *Understanding Energy Balance*

This lecture will cover the basics of energy balance, including how we sense and measure energy intake and expenditure. This has very important consequences for understanding weight gain and loss.

## *Contents*

<i>Learning Objectives</i>	2
<i>Energy Balance and Changes in Body Weight</i>	2
<i>Energy Intake</i>	2
<i>What is Energy Intake?</i>	2
<i>How do the foods we eat affect in energy intake?</i>	2
<i>How do we assess energy intake?</i>	2
<i>Energy Expenditure and Adaptive Thermogenesis</i>	2
<i>What are the components of energy expenditure?</i>	2
<i>How do diet and activity affect energy expenditure?</i>	2

### *Learning Objectives*

- Understand how metabolic rates are changed in response to diets and overfeeding.

### *Energy Balance and Changes in Body Weight*

#### *Energy Intake*

*What is Energy Intake?*

*How do the foods we eat affect in energy intake?*

*How do we assess energy intake?*

#### *Energy Expenditure and Adaptive Thermogenesis*

*What are the components of energy expenditure?*

*How do diet and activity affect energy expenditure?*

### HOW IS ENERGY EXPENDITURE DETERMINED