

# Module 3: High-Performance Machinery

## Topic 2 Content: Joints

### Introduction

#### Joints that Muscle Moves

##### Introduction



Joints are points of movement in our bodies. They allow for a part of the body to move separate from another part.

1 2

Joints are points of movement in our bodies. They allow a part of the body to move separate from another part.

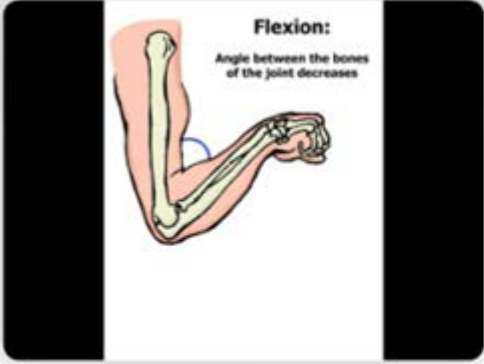
## Module 3: High-Performance Machinery

### Topic 2 Content: Joints

#### Flexion and Extension

#### Joints that Muscle Moves

#### Flexion and Extension



Every joint has a flexion and extension.

**Flexion** narrows the angle between the adjoining bones.

**Extension** straightens the angle.

As in this video, it is simple to see flexion and extension in hinge joints, such as your elbow, because they are allowed only two motions.

00:02 / 00:05

1 2

Every joint has a flexion and extension.

**Flexion** narrows the angle between the adjoining bones.

**Extension** straightens the angle.

As in this video, it is simple to see flexion and extension in hinge joints, such as your elbow, because they are allowed only two motions.


## Module 3: High-Performance Machinery

### Topic 2 Content: Joints

#### Abduction and Adduction

#### Joints that Muscle Moves

#### Abduction and Adduction



**Abduction** is the opposite. There is an increase of the angle by moving the body part away from the midline of the body.

**Adduction** is like flexion, it decreases the angle at a joint by moving the body part toward the midline or center of the body.

When you do jumping-jacks and spread your arms and legs in the first jump, you are in abduction. On the second jump, when you bring your arms and legs back together, you are in adduction.

00:02 / 00:03

1 2

**Abduction** is the opposite. There is an increase of the angle by moving the body part away from the midline of the body.

**Adduction** is like flexion, it decreases the angle at a joint by moving the body part toward the midline or center of the body.

When you do jumping-jacks and spread your arms and legs in the first jump, you are in abduction. On the second jump, when you bring your arms and legs back together, you are in adduction.

View the jumping jack during abduction and adduction in this video, then try doing a couple of jumping-jacks yourself.