Addressing common sayings and beliefs surrounding health and fitness

Charles Burroughs
Fitness Services Coordinator
University Recreation
Exercise, by nature, is stressful. In order for the body to benefit from exercise, we must put abnormal stress on it.

This adaption from this stress improves the body’s efficiency so that the next time we encounter this stimulus, it is not as stressful.

This process is often uncomfortable.

HOWEVER, it should NOT be painful.
Discomfort vs. Pain

**Discomfort:**
- Exercise should be challenging, but not unbearable
- Temporary in duration (even soreness)
- Decreases over time and repetition

**Pain:**
- Greater intensity
- Typically lingers
- Does not decrease (or even increases) over time
- More likely to occur in a joint
- Often in areas that are not directly being targeted
The higher the intensity of exercise, the more challenging it is to differentiate “good” vs “bad” discomfort.

- Utilize Rate of Perceived Effort (RPE) to avoid pushing yourself past a safe intensity.
- Normal discomfort will typically match your RPE.

<table>
<thead>
<tr>
<th>RPE</th>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>MAX EFFORT ACTIVITY</td>
<td>Feels almost impossible to keep going. Completely out of breath, unable to talk. Cannot maintain for more than a very short time</td>
</tr>
<tr>
<td>9</td>
<td>VERY HARD ACTIVITY</td>
<td>Very difficult to maintain exercise intensity. Can barely breathe and speak only a few words</td>
</tr>
<tr>
<td>7-8</td>
<td>VIGOROUS ACTIVITY</td>
<td>Borderline uncomfortable. Short of breath, can speak a sentence</td>
</tr>
<tr>
<td>4-6</td>
<td>MODERATE ACTIVITY</td>
<td>Breathing heavily, can hold a short conversation. Still somewhat comfortable, but becoming noticeably more challenging</td>
</tr>
<tr>
<td>2-3</td>
<td>LIGHT ACTIVITY</td>
<td>Feels like you can maintain for hours. Easy to breathe and carry a conversation</td>
</tr>
</tbody>
</table>
“No pain, no gain”

MYTH

BUSTED

Some discomfort is normal. Pain is not.
Post-exercise Muscle Soreness

- Also known as D.O.M.S. (Delayed Onset Muscle Soreness), this soreness typically lasts 2 – 5 days
- Severity can range from mild to severe
- Exact cause is unknown, however it is believed to be the result of microscopic tears to muscle tissue during exercise (It is NOT the result of lactic acid build up)
What we DO know:

- DOMS is more intense and lasts longer when experiencing new types of exercise

- The intensity and duration of new exercise can also affect DOMS

- HOWEVER, there is no correlation between progress and muscle soreness
OTHER CONSIDERATIONS

Rather than using soreness as an indicator of an “effective workout” consider:

- RPE during the workout
- Performance compared with previous exercise (repetitions, weight, distance, etc.)
"IF I DON'T GET SORE, I DIDN'T WORK HARD ENOUGH"

MYTH BUSTED

MUSCLE SORENESS IS A POOR INDICATOR OF EFFECTIVENESS OR PROGRESS
Warming up before exercise essential, but why?

- Injury prevention
- Improved performance

A proper warm up prepares the body for rigorous activity by:

- Increasing body temperature (elasticity)
- Increasing blood circulation (energy transport)
- Loosening and lubricating joints
- Warming up should last between 5 – 20 minutes
- Intensity should be light to moderate (RPE: 2 – 5)
- Two components:
  - Cardiovascular (heart rate)
  - Dynamic stretching (targeted muscles and joints)
WARMING UP

Dynamic Stretching

- “Flowing” movement to increase/maintain elevated heart rate
- Stretches are held only 1 – 10 seconds, and no longer than 15 seconds
- Targets muscles to be worked out
- Utilizes full range of motion for relevant joints
WHAT ABOUT STATIC (SLOW) STRETCHING?

It is best for:

- elongating tight muscles
- Improving joint flexibility and mobility
- Boosting recovery from exercise

HOWEVER:

- Increases risk of injury immediately after
- Best performed either after a workout or by itself
"I SHOULD STRETCH BEFORE EXERCISE"

DYNAMIC STRETCHING IS AN IMPORTANT PART OF WARMING UP, HOWEVER STATIC STRETCHING SHOULD BE SAVED FOR AFTER A WORKOUT
What is resistance training?

It is a form of exercise that focuses on muscular fitness and improving strength, power, hypertrophy, or endurance.

Resistance is training is necessary to build muscle.

To achieve “big muscles”, lifting weights is also required.

HOWEVER, achieving significant muscle gain requires a mixture of purposeful training, nutrition, and appropriate hormone levels.
Building muscle (hypertrophy) is a slow and intentional process, it requires:

- A caloric surplus (especially protein)
- High training volume
- High hormone levels (HGH, Testosterone, IGF, etc)
- Appropriate bone size and density

- It is nearly impossible for most women (and men over 40) to gain large amounts of muscle without additional supplementation
What most individuals will experience from lifting weights

- Increased strength
- Improved muscle control and coordination
- Increased bone density
- Higher metabolism
“LIFTING WEIGHTS WILL MAKE ME BULKY”

LIFTING WEIGHTS IS ONLY ONE PART OF THE RECIPE TO BUILDING MUSCLE

MYTH BUSTED
BELIEF #5: “I CAN EAT MORE BECAUSE I EXERCISE”

This statement is generally based on two commonly held ideas:

- Calories burned during exercise
- Increased resting metabolism (RMR)
METABOLISM AT REST

Increased resting metabolism (RMR)

- Muscle Hypertrophy: increasing muscle mass increases RMR
  - However, muscle only contributes to 20% of your RMR, so adding one pound of muscle only burns about 4.5 - 7 calories per day at rest.

- Post exercise burning effects (EPOC)
  - Some types of higher intensity exercise result in a temporary boost in RMR for 12 – 24 hours after exercise. Studies showed that after workouts, participants experienced an excess of calories (50 – 100) burned.

- Reduced hormonal issues (insulin)
  - Studies suggest that exercise improves hormone regulation and reduce insulin resistance (which can make fat loss more difficult)
The amount of calories burned during exercise is effected by MANY factors, just a few include:

- Age
- Weight
- Gender
- Fitness level
- Exercise intensity
- Exercise duration
- Exercise selection
- Muscles involved
- Amount of muscle
- Heart rate
- Body temperature
- Amount of muscle
- Heart rate
- Body temperature

While fitness devices (FitBit, treadmills, smartphones, etc.) can provide a rough estimate, they are rarely accurate.
The most significant change in metabolism comes from calories burned during exercise.

The two largest factors in determining the amount of calories burned during physical activity are duration and intensity.

People often overestimate the amount of calories they are burning through exercise OR underestimate the caloric content of their food.

The best way to determine how many calories you are burning is through both food, exercise, and body composition tracking.
OTHER CONSIDERATIONS

- First, consider your fitness goals
- We are only discussing calories, not nutritional content
- The best way to determine how many calories you are burning is through both food, exercise, and body composition tracking.
"I CAN EAT MORE BECAUSE I EXERCISE"

Regular exercise does increase your metabolic rate, however caution should be used when increasing food intake.
QUESTIONS?
BE SURE TO CHECK OUT WHAT ELSE UNIVERSITY RECREATION HAS TO OFFER

UA Recreation YouTube Channel:
https://www.youtube.com/channel/UCfcDHwPTCFTfh-UWai88ZWq

Follow us on Social Media for live classes and other updates!

- Instagram: https://www.instagram.com/uarecreation/
- Facebook: https://www.facebook.com/UARecreation/
- Twitter: https://twitter.com/UARecreation
Sources


