Exercise Versus Caffeine: Which is Your best ally to fight fatigue?

Chronic lack of sleep makes it hard to focus on a task. As if this didn’t make complete logical sense, multiple research studies have shown that sleep deprivation has about the same effect on our cognition and coordination as a few alcoholic beverages.

What do you do when you need to concentrate, but you’re tired? Many of us reach for a cup of coffee, or a soda. Mountains of solid research have shown us that caffeine (in doses ranging between 30 and 300 milligrams) improves attention, alertness, reaction time, and mood, especially when we’re tired. An average cup of brewed coffee contains between 80 and 100 milligrams of caffeine; a soda, between 30 and 60.

But exercise works too. Even a short bout of any cardiovascular exercise wakes us up, speeds mental processes, and enhances memory storage and retrieval, regardless of our fitness or fatigue levels.

So, when it’s late afternoon and I’m struggling with charting or finishing one of these pieces, what should I do: exercise a bit, or go for coffee? One recent (and very small) study compared these two wake-up methods. This well-conducted study used healthy but chronically sleep-deprived volunteers to compare three interventions: caffeine, stair-climbing, and placebo. They found that just 10 minutes of stair-climbing boosted self-reported levels of energy far more than a moderate dose of caffeine (50 mg). However, this was a very small study — only 18 out of 90 healthy, college-aged women met all the criteria and were willing to participate. Interestingly, another study looked at the effects of either exercise alone or exercise plus caffeine on cognitive tasks, and found that (perhaps predictably) exercise plus caffeine had the greater benefit.

Caffeine (in the form of coffee) has been well-studied, and regular intake is associated with lower risk of type 2 diabetes, high blood pressure, and obesity, but may increase cholesterol. It may be protective against certain types of dementia and cancer, but has been associated with bone loss and rheumatoid arthritis. Basically, there are many benefits, but there seem to be some risks as well.

But there are multiple studies suggesting that exercise has multiple long-lasting positive effects on physical fitness and function, cognition, mood, and behavior in just about all populations studied, in all ages, fitness levels, and regardless of baseline cognitive function. Some of the greatest benefits have been seen in older patients, as well as patients at risk for or diagnosed with dementia.

The take-home message? Caffeine can provide a boost in alertness and energy levels that may help you to think faster and better, for a while. But even a short burst of exercise can do the same, maybe more, and for longer. In addition, while caffeine is associated with both good and bad health outcomes, exercise is good for everything.

For a full reference list contact wellness@luther.edu

Home Wellness Tip

Brighten up! Use specific colors in different areas around your home to boost your mood in each space.

Workday Wellness Tip

Set an alert on your daily calendar to move during the day. This can be as little as standing in your space and stretching or maybe doing some marching in place.
**Employee Spotlight**

**Amy Webber**  
International Student Coordinator

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**Happify**

Check out this App

Whether you're feeling stressed, anxious, depressed, or you're dealing with constant negative thoughts, Happify brings you effective tools and programs to take control of your emotional wellbeing.

- Available on Apple & Android Devices

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**Banana-Almond Energy Bars**

<table>
<thead>
<tr>
<th>Recipe Ingredients</th>
<th>Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 cups regular rolled oats</td>
<td>1/3 cup sliced almonds, crushed</td>
</tr>
<tr>
<td>1/2 cup mashed banana</td>
<td>1 egg</td>
</tr>
<tr>
<td>1/3 cup almond butter or peanut butter</td>
<td>1/3 cup honey</td>
</tr>
<tr>
<td>1/4 cup whole wheat flour</td>
<td>1/4 cup honey</td>
</tr>
<tr>
<td>1 teaspoon baking powder</td>
<td>1/2 teaspoon apple pie spice</td>
</tr>
<tr>
<td>1/2 teaspoon vanilla</td>
<td>1/2 teaspoon vanilla</td>
</tr>
<tr>
<td>1 teaspoon salt</td>
<td>1/4 teaspoon salt</td>
</tr>
<tr>
<td>1 1/2 cups wheat and sweet potato flake cereal (Kashi) or whole grain flakes (bran flakes)</td>
<td>3/4 cup dried apples, snipped into small pieces</td>
</tr>
</tbody>
</table>

**Directions**

1. Preheat oven to 350 degrees F. Line a 9-inch square baking pan with foil, extending the foil over the edges of the pan. Spread oats and almonds in a 15x10-inch baking pan. Bake about 8 minutes or until lightly toasted. Let cool on wire rack.
2. In a large bowl lightly whisk egg. Add the next eight ingredients (through salt); whisk until well mixed. Add the cereal, dried fruit, and cooled oats and almonds to banana mixture; stir until combined. Spoon into the prepared pan, spreading evenly.
3. Bake about 20 minutes or until browned around edges. Cool completely in pan on a wire rack. Use edges of foil to lift uncut bars from the pan. Cut into 16 bars.

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**One Move Wonder**

Check out this Exercise

**Glute Bridge:** Lie on your back and place your feet flat on the floor, hip-width apart, toes pointing forward, with your knees bent. Contract your abs and push through your heels to lift your hips off the floor. You should feel your abs engaged (or contracted) throughout the entire exercise. Avoid pushing your hips too high and compromising your back.

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We asked Amy what she does when she feels tired but still needs to concentrate and stay alert, and she said that for her getting out of her chair and going outdoors helps. Lately she’s been trying to walk/move 15,000 steps a day to stay active throughout the day and she uses a Fitbit to monitor the progress.

As an advice to other employees on how to stay energized she says, “Do something you love!”. She admits, “I get lots of energy from students and sometimes run out of energy from them too, it’s a toss up but I LOVE MY JOB”.

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**Eat Well, Be Well Printable Recipe Card**

Just print this page, cut, and fold for a 3x5 recipe card!

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**Words of Wellness**

a newsletter helping you thrive at Luther