Prolonged Energy Foods

<table>
<thead>
<tr>
<th>Complex Carbohydrates</th>
<th>Low Fat Proteins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potatoes</td>
<td>Beans</td>
</tr>
<tr>
<td>Pasta</td>
<td>Chicken</td>
</tr>
<tr>
<td>Rice</td>
<td>Fish</td>
</tr>
<tr>
<td>Cereals</td>
<td>Lean Meats</td>
</tr>
<tr>
<td>Whole Grains</td>
<td></td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
</tr>
<tr>
<td>Veggies</td>
<td></td>
</tr>
</tbody>
</table>

Remember that **Saturated Fats** and **Hydrogenated Fats** are the BAD FATS

GOLD FATS

- **Monounsaturated Fats**
  - Nuts & Seeds
  - Vegetable Oil
  - Olive Oil
  - Avocados
  - Peanut Butter

- **Polyunsaturated Fats**
  - Soybean Oil
  - Flaxseed Oil
  - Fish Oil
  - Cottonseed Oil
  - Sunflower Oil
ENERGY DRINK EFFECTS

Heart Rate Averages

Blood Pressure Averages

Blood Sugar Averages
A banana gives an instant, sustained and substantial boost of energy. Bananas contain three natural sugars - sucrose, fructose and glucose combined with fiber. Just two bananas provide enough energy for a strenuous 90-minute workout.

But energy isn’t the only way a banana can help us keep fit. It can also help overcome or prevent a substantial number of illnesses and conditions, making it a must to add to our daily diet.

**DEPRESSION:** According to a recent survey undertaken by MIND amongst people suffering from depression, many felt much better after eating a banana. This is because bananas contain tryptophan, a type of protein that the body converts into serotonin.

**PMS:** Forget the pills - eat a banana. The vitamin B6 it contains regulates blood glucose levels, which can affect your mood.

**ANEMIA:** High in iron, bananas can stimulate the production of hemoglobin in the blood and so helps in cases of anemia.

**BLOOD PRESSURE:** Extremely high in potassium yet low in salt, making it perfect to beat blood pressure. The US Food and Drug Administration has just allowed the banana industry to make official claims for the fruit’s ability to reduce the risk of blood pressure and stroke.

**BRAIN POWER:** 200 students in England were helped through their exams this year by eating bananas at breakfast, break, and lunch in a bid to boost their brain power. Research has shown that the potassium-packed fruit can assist learning by making pupils more alert.

**CONSTIPATION:** High in fiber, including bananas in the diet can help restore normal bowel action.

**HANGOVERS:** One of the quickest ways of curing a hangover is to make a banana milkshake, sweetened with honey. The banana calms the stomach and, with the help of the honey, builds up depleted blood sugar levels, while the milk soothes and re-hydrates your system.

**HEARTBURN:** Bananas have a natural antacid effect in the body, so if you suffer from heartburn, try eating a banana for soothing relief.

**MORNING SICKNESS:** Snacking on bananas between meals helps to keep blood sugar levels up and avoid morning sickness.

**MOSQUITO BITES:** Rub the affected area with the inside of a banana skin. Many people find it successful at reducing swelling and irritation.

**NERVES:** Bananas are high in B vitamins that help calm the nervous system.

**ULCERS:** The banana is used as the dietary food against intestinal disorders because of its soft texture and smoothness. It also neutralizes over-acidity and reduces irritation by coating the lining of the stomach.

A banana really is a natural remedy for many ills. When you compare it to an apple, it has FOUR TIMES the protein, TWICE the carbohydrate, THREE TIMES the phosphorus, five times the vitamin A and iron, and twice the other vitamins and minerals. It is also rich in potassium and is one of the best value foods around. So maybe it’s time to change that well-known phrase so that we say...

**Banana for Breakfast Anyone??**
Super Snacks: 5 snacks for energy.

**Edamame, or boiled soybeans,** are a great pick-me-up because they're easy to make, easy to transport, and fun to eat right out of the shell. Soybeans are full of nutrients that contribute directly to a boost in energy as well as mood. A single cup of edamame provides 116 percent of the recommended daily amount of tryptophan, which helps regulate appetite, enhance sleep, and improve mood—three factors that play a significant role in affecting energy levels. In the same serving, you'll get 57 percent of the recommended amount of protein, 43 percent of your daily omega-3 fatty acids, 41 percent of fiber, and 49 percent of your daily iron—all important contributors to sustained energy. Soybeans are also super-rich in molybdenum, an essential trace mineral that helps cells function properly, facilitates the use of iron reserves, aids in metabolizing fat and carbohydrates, enhances alertness, improves concentration, and helps balance blood sugar levels. All of these functions are crucially linked to the production and sustainability of energy. Molybdenum also helps prevent anemia, a common culprit of iron-deficiency-related fatigue. Plus, soybeans are packed with folate, a natural

**Yogurt** is full of calcium, phosphorus, protein, tryptophan, molybdenum, and zinc. It's also a great source of vitamins B2 (riboflavin), B5 (pantothenic acid), and B12 (cobalamin). Thanks to its liquid-like state, the nutrients in yogurt are assimilated quickly and easily during digestion, which means you get an immediate boost of energy. Yogurt's high protein content means that energy also has staying power. Protein-rich snacks like yogurt can even **pump up your probability for ditching the pounds.** Since protein takes time to digest, you'll feel satisfied for longer—which means less snacking and fewer calorie splurges throughout the day. Greek yogurt has several added benefits above regular varieties.

**Pineapple** is a rich source of manganese, vitamin C, vitamin B1 (thiamin), copper, fiber, and vitamin B6, this juicy fruit is a super snack for fueling energy. Thanks to high levels of naturally occurring sugar (fructose), dietary fiber, and water, fresh pineapple is nature's equivalent of a kick in the pants. The carbohydrate-rich fructose breaks down quickly for a fast energy boost, while the fiber slows digestion for long-lasting results. Pineapple's energy-extending capabilities don't stop there: Manganese and thiamin are both essential in energy production and help metabolize carbohydrates. And the vitamin B6 in pineapple plays a part in converting tryptophan into serotonin in the brain for a natural mood booster. Pineapple contains bromelain, which contains a number of enzymes that help improve digestion. In addition, eating fluid-filled foods like pineapple can help prevent dehydration, one of the most common culprits of zapped energy. Water is necessary for every

**Whole grains**—especially whole wheat—are full of essential nutrients that energize both body and brain, including fiber; manganese; magnesium; iron; protein; carbohydrates; and vitamins B1, B2, and B3. Whole wheat is loaded with energizing B vitamins, which fight fatigue, maintain energy levels, stabilize blood sugar, improve sleep patterns, coordinate nerve and muscle activity, and boost mood. The complex carbohydrates in whole wheat, however, are absorbed more slowly, which translates into stable blood sugar levels for hours at a time and gradual, lasting energy. Carbs are also full of tryptophan, the amino acid precursor to the feel-good chemical serotonin produced in the brain. Too much tryptophan can trigger a spike in serotonin that leads to

**Almonds** are packed with a potent combination of energy-enriching nutrients, including manganese, vitamin E, magnesium, tryptophan, copper, vitamin B2 (riboflavin), and phosphorus. Magnesium has been called a miracle mineral because of its multifunctional capabilities: In addition to being an essential part of more than 300 biological processes, magnesium aids in the production of energy, supports the immune system, **improves sleep patterns,** relaxes muscles, relieves stress and anxiety, and boosts mood. The protein and fiber in almonds stabilizes blood sugar and slows digestion, which helps regulate energy, so you have steady reserves over time. Healthy fats like the kind found in almonds have been found to curb appetite and prevent overeating. The fat
Healthy Food Choices

Choose only one or two goals to focus on at a time.
- Do what is right for you.
- Do what is possible.
- Set yourself up for success.

Eat a variety of foods.
- Eat several fruits and vegetables every day.
- Have different types of starches (cereals, grains, pasta, bread) with your meals. Try new types of whole-grain breads and breakfast cereals.
- Eat more high-fiber foods and fewer salty foods.
- Try new foods. If you usually eat only one or two choices from a group, try others.

Avoid skipping meals.
- Don't skip meals. Skipping meals can make you more hungry, moody, and unable to focus.
- Eat some food within a couple of hours of getting up.
- Try to eat in a consistent pattern. Learn what works best for you.
  Some people like 3 meals a day, others like 2 meals and 2 snacks.
- Eat about the same time each day.

Eat healthy carbohydrates.
- Starch, fruits, milks, and sweets count as carbohydrate foods.
  - Foods high in starch include bread, potatoes, noodles, rice, tortillas, dried beans, and cornstarch foods have a lot of vitamins and minerals and are low in fat.
  - Foods high in sugar include candy, doughnuts, fruit drinks, fruit canned in heavy syrup, cake with icing, pie, and other sweets. Most have no vitamins and minerals. Some are high in fat. Watch portion sizes.
- Avoid regular soft drinks. One has 9 teaspoons of sugar!
  - Choose water or diet soft drinks.
- Balance your carbohydrate. Eat consistent portions from day to day at meals. If you have a sugary food at a meal or snack, you may need to eat less starch. A dietitian can help you know how much carbohydrate is right for you.

Watch serving sizes.
- Keep a record of the food you eat and drink.
- Know what you are eating. Measure or weigh your food a couple of times a month.
- Look at food labels to see what size the servings are. Compare them to the serving sizes you usually eat.

Eat less fat.
- Prepare foods with less fat or no fat. Bake, broil, roast, and grill, instead of frying. Let fat drip away from meats.
- Have a meatless meal once or twice a week.
- Choose fried or high-fat foods only 1-3 times a week.
- Choose fewer high-fat foods.
- Drink fat-free or low-fat milk.

Be at a healthy weight.
- Your weight goal should be one that is best for you.
- If you have trouble getting to your healthy weight or staying there, talk to a dietitian.
  Wellness Coach for CHUG is Natasha Dallin at Golden Health

Be physically active.
- Every day, be active and move your body—walking, sweeping, gardening, or playing.
- Be active at least 30 minutes most days. Three 10-minute periods of activity are equally effective.

Choose a healthy lifestyle.
Other health choices may be important for you. For example,
- Drink plenty of fluids.
- Limit alcoholic intake.
- Eat out less than three times per week.

Summary.
This is what I will do:


Feel good about what you already do. For now, choose only one or two new changes to make.
It is recommended that the six food groups have
the following number of daily servings:

- **Grains** — 6-11 Servings (bread, cereal, rice, pasta)
- **Vegetables** — 3-5 Servings
- **Fruits** — 2-4 Servings
- **Dairy** — 2-3 Servings (milk, yogurt, cheese)
- **Meat** — 2-3 Servings (fish, poultry, eggs, beans, nuts)
- **Fat, Oil, & Sweets** — Sparingly

---

**Single Portion Size Averages and Guides:**

- **Nickel (diameter)** = 2 oz. of dry spaghetti = 1 cup cooked spaghetti
  210 calories — 7g protein — 42g carbs — 1g fat

- **Tennis Ball** = 1 cup cooked rice or 15 grapes
  - Rice (1 cup cooked): 220 calories — 4g protein — 44g carbs — 0g fat
  - Grapes (15): 57 calories — .5g protein — 14g carbs — .5g fat

- **Baseball** = 12 oz. potato or 1 cup cold cereal/corn flakes/granola
  - Potato (12 oz.): 118 calories — 2g protein — 28g carbs — <1g fat
  - Cold Cereal/Corn Flakes (1 cup): 100 calories — 2g protein — 24g carbs — 0g fat
  - Granola (1 cup): 120 calories — 2g protein — 21g carbs — 4g fat

- **Deck of Playing Cards** = 3 oz. of meat
  173 calories — 29g protein — 0g carbs — 5g fat

- **1" Wood Cube** = 1 oz. of cheese
  177 calories — 7g protein — <1g carbs — 9g fat
  (NOTE: A 1½ oz. slice of cheese is about the size of a computer disk.)

- **Compact Disk (CD) Case** = 1 slice of bread
  - Wheat Bread (1 slice): 70 calories — 3g protein — 13g carbs — 1g fat
  - White Bread (1 slice): 90 calories — 1g protein — 12g carbs — 2g fat

- **Matchbook** = 1 tbsp. of oil, salad dressing, or mayonnaise
  120 calories — 0g protein — 0g carbs — 14g fat
The Importance of Drinking Water

- Regulates Body Temp.
- Composes 75% of Brain
- Helps Convert Food into Energy
- Helps Carry Nutrients and Oxygen to Cells
- Makes up 89% of Blood
- Helps Moisten Oxygen for Breathing
- Makes Up 75% of Muscles
- Protects and Cushions Vital Organs
- Absorbs Nutrients
- Removes Waste and Toxins
- Prevents Night time Leg Cramps
- Accounts for 22% of Bones

2 Glasses of water when you wake up helps activate internal organs.
1 glass of water 30 minutes before meals helps digestion.
1 glass of water before taking a bath helps lower blood pressure.
1 glass of water before going to bed helps avoid stroke or heart attack.
Portion sizes have increased over the years:

- Regular - 2Tbsp  
  140 Calories, 14g fat  
  Change = 11.5 lbs / Year

- Fat Free - 2Tbsp  
  30 Calories, 0g fat

- Light - 2Tbsp  
  80 Calories, 7g fat

- Fat Free - 1Tbsp  
  10 Calories, 0g fat

- Regular - 1Tbsp  
  100 Calories, 11g fat  
  Change = 9.4 lbs / Year

- Fat Free - 1Tbsp  
  40 Calories, 0g fat

- Light - 1Tbsp  
  40 Calories, 3.5g fat

- Fat Free - 1Tbsp  
  10 Calories, 0g fat

Donuts, muffins and other high calorie baked goods:

- Low in fiber
- High in fat
- Contribute to higher cholesterol

Hot and cold cereals with whole grains and high fiber are great options:

- Contribute to higher cholesterol

SMALL Changes can make a BIG difference.
Back Anatomy and Function

Low back pain can result from weak core muscles! Our deepest abdominal muscle, the transverse abdominus (TA), is responsible for stabilizing the lower back. Some studies support the theory that the transverse abdominus is the first muscle activated in over 90% of all activities! Having strong core muscles can help with lifting tasks at work. To help prevent injury and pain, try the suggested stretches and at home tips!

Common Causes of Back Pain

1. Poor posture
2. Improper lifting or carrying heavy loads
3. Certain diseases
4. Repetitive strain
5. Sports injuries or other accidents

Red Flags... May Require Rest or Medical Attention

1. Pain, tingling, or numbness down the leg
2. Inability to carry out activities of daily living, such as dressing and grooming
3. Numbness in the groin, or incontinence
4. Prolonged morning stiffness
5. Pain during sitting, standing, or walking

At Home...

When to use heat:
1. Sore and stiff, without swelling
2. To loosen up before a shift
3. Stiff without pain

When to use ice:
1. Sore with mild swelling
2. At the end of a shift
Stretching Exercises

**Cat/Camel**
Place hands on knees. Arch back and hold 10 seconds. Round back and hold 10 seconds.

**Hamstring Stretch**
Perform exercise for each leg, one at a time. Place heel on bench or other sturdy object approximately 8–12” off the ground. Bend opposite knee and hold 10 seconds.

**Side Twists**
Raise hands overhead. Turn left and hold 10 seconds. Turn right and hold 10 seconds.

**Back Extensions**
Place hands on low back. Lean backwards for 5 seconds.

**Side Bends**
Raise hands overhead. Bend left and hold 10 seconds. Bend right and hold 10 seconds.

---

Performance of these stretches should not detract from security screening or your primary job duties. When performing these stretches, use designated areas outside of the public view, such as break areas or locker rooms. Employees should always maintain a professional and command presence while in public view.
Your Foot/Ankle at Work
Practical Information for Employees

Foot/Ankle Anatomy and Function
The human foot has 26 bones, 33 joints, and a network of more than 100 tendons, muscles, and ligaments; plus numerous blood vessels and nerves. The foot acts as a support for the entire body, and is constantly adapting to uneven terrain and absorbing shock during running and walking. To help prevent injury and pain, try the suggested exercises and at home tips!

Common Causes of Foot/Ankle Pain
1. Wearing the wrong type of footwear
2. Prolonged training
3. Muscle weakness
4. Foot deformity
5. Repetitive strain
6. Poor circulation to area
7. Nerve damage
8. Sports injuries or other accidents

3. Inability to control ankle movement
4. Loss of sensation

At Home...
To help reduce swelling and pain:
1. Lay down
2. Prop your legs up
3. Apply ice to your ankles and feet

Red Flags... May Require Rest or Medical Attention
1. Symptoms of pain, redness, or swelling are worsening
2. Formation of ulcer

Brochure developed and donated by:
Michael Majsa, PT, EdD, Associate Professor and Chair
Derek Steffe, PT and Barrie Westreich, PT, former Doctor of Physical Therapy students

Department of Physical Therapy School of Health Sciences and Practice & Institute of Public Health
New York Medical College, Valhalla, New York 10595
Stretching Exercises

Heel Raises
Perform exercise for each leg, one at a time. Hold chair or wall for support. Lift up onto toes.

Wall Slides
Lean against wall. Place feet 2 feet away from wall. Slide down to seated position, and push back up.

Calf Stretch
Perform exercise for each leg, one at a time. Face wall. Place one foot forward, and straighten back leg. Lunge onto front leg. Hold 30 seconds.

Standing Hamstring Curl
Face wall or support. Bring knees together. Lift one heel off ground. Switch legs.

Step Downs
On steps, slowly lower one heel to the ground. Lift up.

A healthy lifestyle is one that includes proper diet, exercise, adequate sleep, and effective stress management. Adopting a stretching routine is one way to jumpstart your efforts toward leading a healthier lifestyle.

The purpose of this publication is to provide employees with examples of stretches that can be performed to help increase flexibility and relieve fatigued muscles.

The stretches illustrated on this publication should not be performed by an individual who is currently injured, nor should they be used as a resource for someone seeking to rehabilitate an injury.

If you have a serious health condition, please contact your health care provider before performing any stretches illustrated on this publication.

Stretching should never cause pain or undue discomfort, especially in your joints. If it does, stop stretching immediately and consider consulting with your healthcare provider.

Performance of these stretches should not detract from security screening or your primary job duties. When performing these stretches, use designated areas outside of the public view, such as break areas or locker rooms. Employees should always maintain a professional and command presence while in public view.
Knee Anatomy and Function

The knee is a complex joint consisting of multiple bones, muscles, and tendons. Within this joint there is a delicate balance between muscle strength and flexibility. A stretching regimen can help to keep this balance and decrease knee pain. To help prevent injury and pain, try the suggested exercises and at home tips!

Common Causes of Knee Pain

1. Twisting of leg with a planted foot
2. Improper lifting techniques
3. Overuse from repeated impact
4. Improper joint motion
5. Tight muscles
6. Prolonged standing
7. Sports injuries or other accidents

At Home...

When to use heat:
1. Sore and stiff, without swelling
2. To loosen up before a shift
3. Stiff without pain

When to use ice:
1. Sore with mild swelling
2. At the end of a shift

Red Flags...
May Require Rest or Medical Attention

1. Swelling which does not go away with ice and elevation
2. Clicking or popping which cause a sharp pain
3. Knee giving out during normal daily activities
**Stretching Exercises**

**Quadriiceps Stretch**

Hold object for support. Bend knee and pull foot towards buttock with hand. Hold 10 seconds.

**Hamstring Stretch**

Perform exercise for each leg, one at a time. Place heel on bench or other sturdy object approximately 8-12” off the ground. Bend opposite knee and hold 10 seconds.

**Quadriiceps Set**

Perform exercise for each leg, one at a time. Lift one leg off floor. Squeeze thigh for 10 seconds.

**Wall Slides**

Lean against wall. Place feet 2 feet away from wall. Slide down to seated position and back up.

**Step Downs**

Perform exercise for each leg, one at a time. Hold onto rail for support. Lower leg down to step below.

- A healthy lifestyle is one that includes proper diet, exercise, adequate sleep, and effective stress management. Adopting a stretching routine is one way to jumpstart your efforts toward leading a healthier lifestyle.
- The purpose of this publication is to provide employees with examples of stretches that can be performed to help increase flexibility and relieve fatigued muscles.
- The stretches illustrated on this publication should not be performed by an individual who is currently injured, nor should they be used as a resource for someone seeking to rehabilitate an injury.
- If you have a serious health condition, please contact your health care provider before performing any stretches illustrated on this publication.
- Stretching should never cause pain or undue discomfort, especially in your joints. If it does, stop stretching immediately and consider consulting with your healthcare provider.
- **Performance of these stretches should not detract from security screening or your primary job duties.** When performing these stretches, use designated areas outside of the public view, such as break areas or locker rooms. Employees should always maintain a professional and command presence while in public view.
Shoulder Anatomy and Function

The shoulder is comprised of three joints that work together to provide stability and strength to our upper extremities. These three joints enable various motions of the shoulder, so when one becomes injured, often times the other two are left immobile and in pain. With many tendons and muscles running through the shoulder, it is important to keep it healthy and strong! To help prevent injury and pain, try the suggested exercises and at home tips!

Common Causes of Shoulder Pain

1. Repetitive overhead activities
2. Improper lifting techniques
3. Poor posture
4. Muscle fatigue
5. Sports injuries or other accidents

At Home...

When to use heat:
1. Sore and stiff, without swelling
2. To loosen up before a shift
3. Stiff without pain

When to use ice:
1. Sore with mild swelling
2. At the end of a shift

Red Flags...
May Require Rest or Medical Attention

1. Sharp pain when the elbow is raised at, or above, the shoulder
2. Persistent pain
3. Stiffness
4. Instability
Stretching Exercises

**Chest Stretch**

Perform stretch standing, with feet shoulder width apart, for each arm. Place hand on supporting structure, slowly rotate body away hold when tension is felt in the chest for 10 seconds.

**Shoulder Stretch**

Perform exercise while sitting or standing for each shoulder. Reach one arm across chest and pull toward chest with other hand. Hold when tension is felt in the shoulder, for 10 seconds.

**Arm Raises**

With palms facing down, keep shoulders down, and lift arms up to shoulder level.

**Pectoralis Stretch**

Place hands on two solid surfaces and bring chest forward. Hold 15-30 seconds.

**Shoulder Retraction**

Hold bent elbows at side. Squeeze shoulder blades together. Hold 5 seconds.

- A healthy lifestyle is one that includes proper diet, exercise, adequate sleep, and effective stress management. Adopting a stretching routine is one way to jumpstart your efforts toward leading a healthier lifestyle.
- The purpose of this publication is to provide employees with examples of stretches that can be performed to help increase flexibility and relieve fatigued muscles.
- The stretches illustrated on this publication should not be performed by an individual who is currently injured, nor should they be used as a resource for someone seeking to rehabilitate an injury.
- If you have a serious health condition, please contact your health care provider before performing any stretches illustrated on this publication.
- Stretching should never cause pain or undue discomfort, especially in your joints. If it does, stop stretching immediately and consider consulting with your healthcare provider.
- Performance of these stretches should not detract from security screening or your primary job duties. When performing these stretches, use designated areas outside of the public view, such as break areas or locker rooms. Employees should always maintain a professional and command presence while in public view.