BULLWORKER

THE SCIENCE
OF EXERCISE AND FITNESS

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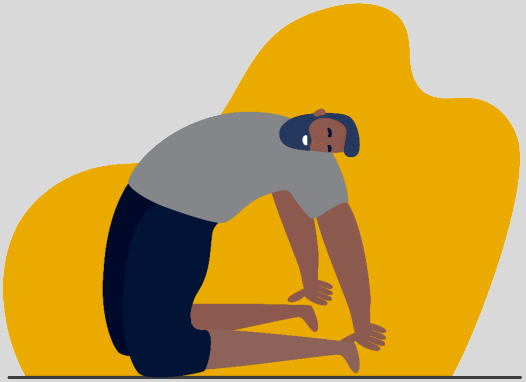
1. STRETCHING

- THE IMPORTANCE OF STRETCHING
- BENEFITS AND REASONS TO STRETCH
- STATIC VS. DYNAMIC: THE TWO FORMS OF STRETCHING
- THE IMPORTANCE OF BREATHING
- EXAMPLE - STATIC STRETCHING ROUTINE



THE IMPORTANCE OF STRETCHING

Flexibility is one of the most important fitness assets you can develop. As we get older our flexibility decreases. In fact, much of the slowed and strained movements of the elderly are due to lost muscle movement and range of motion.

Increased flexibility leads to higher performance in physical activities and decreases your risk of injuries by helping your joints move through their full range of motion. Stretching increases blood flow to the muscles and improves flexibility.

Have you ever bent over, or turned your body only to get a pain in your back? Often this is the result of poor flexibility.

STRETCHING

BENEFITS & REASONS

Injury Prevention When Exercising
One important thing stretching does is get the blood flowing so that you are less likely to injure yourself when exercising. You should do some sort of stretching as a warm up before physical exertion.

Pain Relief
The body is a system. When the muscles experience tension, they put stress on other joints in the body. This is a primary cause of back pain. The muscles get tense and pull on the spinal cord alignment causing irritation and pain.
One example are your hamstrings connecting to your lower back. Stretching your hamstrings will help to relieve stress in your lower back by releasing tension of your hamstrings pulling on your lower back.

Increased Energy Levels
Stretching increases blood flow carrying required nutrients throughout the body resulting in nourishment. When your body receives the nutrients it needs, energy levels are increased lessening your feeling of being fatigued.

Increased Flexibility and Range of Motion
As we age, our muscles tighten resulting in less range of motion in our joints and muscles. Some may notice this when performing everyday activities (I don't remember getting in and out of the car being so difficult or bending down to tie my shoe). Practicing a stretching routine will help your daily activities become easier by increasing your range of motion and relieving your tense muscles.

Increase Blood Circulation
A stretching routine will improve blood circulation to your muscles and joints resulting in an increase of necessary nutrients our muscles and joints need to maintain a healthy state.

STRETCHING

BENEFITS & REASONS

Reduce Inflammation
An increase in blood circulation and a release of tension from stretching your muscles helps reduce inflammation to aid in pain relief and healing.

Relaxation and Stress Relief
When you think of tense muscles, you may also think of stress. Stretching helps improve stress levels and brings relaxation when the muscles are relieved of tension. Stretching helps circulate the blood in your muscles releasing unwanted toxins responsible for the feeling of “soreness”.

Improved Posture and Sex Appeal
Studies show people are more attracted to people displaying good posture. Poor posture can be attributed to tense muscles tightening the skeleton. A hunched old man may come to mind first but appearance is not the only part of the body being affected. The systems and organs of the body may be affected as well. Stretching relieves the muscle tension freeing the skeleton and systems of unnecessary strain.

Greater Sense of Well-Being
Stretching helps improve your range of motion, give you more energy, reduce stress levels, improve blood circulation, aid in pain relief, and help to improve posture to increase your overall wellbeing.

Individual Benefits
Studies have shown the benefits do not stop with the above. Some claim healing of arthritis, headaches, fatigue, depression, and more

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DYNAMIC

Dynamic stretching utilizes momentum and motion to stretch the muscles in an effort to propel the muscle into an extended range of motion not exceeding one's static-passive stretching ability. An example would be rotating your arms in circles or lunges.

VS.

STATIC

Static stretching occurs while the body is at rest. It is composed of various techniques that gradually lengthen a muscle to an elongated position (to the point of discomfort) and hold that position for 30 seconds to two minutes. An example would be touching your toes and holding it for 30 seconds.

DYNAMIC BENEFIT

Dynamic stretching is an effective warm up to increase blood flow, release tension, and increase your heartr ate. Use dynamic stretches that focus on quick movements that increase body temperature and heart rate to prepare for exercise.

VS.

STATIC BENEFIT

Static stretching can be an effective initial warm up and technique for releasing tension. In addition, after a workout when you are extremely tight, stretching helps loosen your muscles improving posture and may decrease soreness.

STRETCHING

NOTES BEFORE STARTING

WARM UP AND START SLOW
Do not exercise without stretching or warming up before you begin, to avoid injury. That's so important I'll say it again. Do not exercise without stretching or warming up before you begin. This is important to your joints and their range of motion.

STRETCHES SHOULD NOT BE PAINFUL
Do NOT push too far or too hard (if it is painful, stop immediately) Avoid rapid movements to decrease risk of injury. In a rapid movement your control of how hard and far you push decreases making it easier to injure yourself.

LISTEN TO YOUR BODY
When your muscles are cold even a small exertion can cause a serious pull or even tear which could bring your future exercise efforts to a complete stop for weeks, or even longer. It is not worth the risk, warm up prior to physical activity. Another rule you should follow relative to injuries, if you are not using a trainer or have professional guidance to help with your program, you must listen to your body.

***If at any time during your exercising, you get an unusual pain or discomfort you should take immediate notice and consider stopping the activity or reducing it until it resolves.*

****Also, remember it is recommended that you ice an injury immediately to reduce swelling and the associated additional irritation it causes. Twenty minutes is the recommended time. Make sure there is a cloth between your skin and the ice to prevent skin damage. We suggest consulting a medical or fitness professional if you have an injury. Proper immediate care can reduce recovery time.*

Breathing is a key component when stretching and exercising. When holding a stretch, take deep breaths. **Breathe in through your nose allowing your abdomen (stomach) to expand.** Exhale through your mouth. Try to breathe naturally.

BREATHING

Breathing while exercising is very important, **DO NOT HOLD YOUR BREATH.** While exercising try to exhale during the most energy exertion (most resistance or applying the most force) and inhale when the least exertion or force is applied during your exercise.

STRETCHING

DYNAMIC EXAMPLES

HAMSTRINGS (BACK OF THE LEGS)
In an open area swing your right leg straight in front of you trying to reach as high as you can (warm up by gently, do not swing as high as you can until you feel comfortable and safe). Alternate between right and left legs for a total of 10 swings.

BENEFIT
Releases tension in your hamstrings and lower back while extending your range of motion, resulting in less stress and may help lower back pain.

SHOULDERS
Arms straight out parallel to the ground and begin to move them in a circular motion forward for 15-30 seconds. Reverse the circles for another 15-30 seconds.

BENEFIT
Releasing tension in your chest and deltoids (shoulders) resulting in better posture and may help in relieving shoulder pain.

SIDE LUNGES
Standing with your legs together lift your right leg and place it to the side while leaving your left foot in place. Extend your right leg far enough to feel a stretch and drop your body until your knee forms a 90 degree angle. Alternate between right and left legs for a total of 5 times for each leg.

BENEFIT
Release tension and strengthen your inner groin, hips, and thighs. Increase flexibility and range of motion.

STRETCHING

LOWER BACK AND NECK

STRETCHES FOR LOWER BACK AND NECK PAIN
These stretches may release tension (especially in the morning) in the lower back to increase mobility and decrease pain and discomfort.

BACK FLEXION
Standing with your feet together and knees slightly bent, relax your back and head towards your knees. Remain “hanging” with your back bent and arms and head relaxed for 10-15 seconds and slowly straighten your back to a standing position with your head being the last to straighten. (This is not touching your toes stretch)

KNEES TO CHEST
Lie on your back on a hard surface, pull both knees to your chest while lifting your head forward until you feel a comfortable stretch, hold for 10-15 seconds.

KNEE TO CHEST (SINGLE)
Lie on your back with knees bent and both heels on the floor, place both hands behind or on one knee and bring it in to your chest (remain flat on the ground).

STRETCHING

DYNAMIC LOWER BACK AND NECK

CHIN TO CHEST
Standing or sitting, gently bend your head forward while bringing your ching toward your chest until a desirable stretch is felt in the back of the neck.

EAR TO SHOULDER
Gently bend your neck to one side as if you are touching your ear to your shoulder (do not raise your shoulder) until a desirable stretch is felt in the side of your neck and hold for 10-15 seconds. Switch sides.

KNEES TO CHEST
Lie on your back on a hard surface, pull both knees to your chest while lifting your head forward until you feel a comfortable stretch, hold for 10-15 seconds.

KNEE TO CHEST (SINGLE)
Lie on your back with knees bent and both heels on the floor, place both hands behind or on one knee and bring it in to your chest (remain flat on the ground).

STRETCHING

STATIC EXAMPLES

HAMSTRINGS (BACK OF THE LEGS)
Start by placing your feet together and standing tall, slowly begin to bend in the back (not your knees, but do not lock your knees) and touch your toes or as close as you can to your feet. Hold the position for 15-30 seconds for optimum results.

Spread your feet about 1.5 times the width of your shoulders. Bend in the back (not your knees, but do not lock your knees) and work your way down towards your right ankle or as close as you can. Hold the position for 15-30 seconds for optimum results. Repeat towards left ankle.

BENEFIT
Releases tension in the hamstrings and lower back. Increased flexibility.

QUARDICEPS (FRONT THIGH)
Stand straight and pull your right foot behind and up towards your butt using the top of the foot (if you need a wall or something for balance please do so) Hold for 15-30 seconds. Repeat with left leg.

BENEFIT
Releases tension in the quadriceps and areas around the knee. Increased flexibility.

CALVES (BACK OF THE LEG BELOW THE KNEE)
Face the wall and place hands against the wall in a leaning position with one foot in front of the other and each foot remaining flat on the ground or as close as you can. Hold for 15-30 seconds. Repeat and switch foot position.

BENEFIT
Releases tension in the calves and feet and increased flexibility.

STRETCHING

STATIC EXAMPLES (CONT'D)

SHOULDERS
Bring your right arm across your body chest high. Using your left arm grab the upper arm above the elbow and assist your right arm across the chest. Hold for 15-30 seconds. Alternate sides.

Stand with your back to a wall, head, shoulders, butt, and heels against the wall. Put your arms at your sides and your thumbs touching the wall with palms facing down raising your arms while keeping contact with the wall. At shoulder level turn your palms facing up and continue until you cannot hold your posture against the wall. The distance from the wall to your lower back should not change.

BENEFIT
Stretches and relieves tension in the front deltoid (shoulder) and chest and increases range of motion in your shoulders.

CHEST
Parallel to the ground with your right hand grab or place hand against a stationary (immoveable) object and rotate your hips counter clockwise without moving your hand until you feel the desired stretch and hold for 15-30 seconds. Repeat in reverse with left hand.

BENEFIT
Releases tension in upper body and inner shoulders resulting in better posture. Increased flexibility.

STRETCHING

STATIC EXAMPLES (CONT'D)

BACK
Lie down on a flat firm surface flat on your back. Pull your right leg below the knee into your stomach while remaining flat on the surface until you feel desired stretch and hold for 15-30 seconds. Repeat with the left leg.

BENEFIT
Releases tension in your lower back to help relieve lower back stress. Increased flexibility.

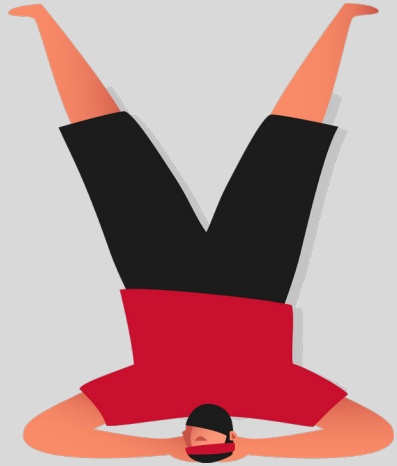
HIPS
Stand up and take a few steps. Remain standing and relax. Look at your feet. If they are not pointing forward (straight) you may have lost flexibility in your hips.

Lie flat on your back (firm surface), place your left foot against the wall adjust until your left knee makes a 90 degree angle and your shin is parallel to the ground. Place your right ankle over your left knee and press on your right knee until you feel a desired stretch in your hip. Hold for 15-30 seconds. Alternate sides.

BENEFIT
Release tension in your hips for more flexibility and less stress on your joints

2. STAMINA

- WHAT IS STAMINA?
- THE IMPORTANCE OF STAMINA
- BENEFITS AND REASONS FOR STAMINA
- STRENGTHEN YOUR STAMINA



WHAT IS STAMINA?

Physical **stamina** is the ability of your heart and lungs to function during high-intensity activities. Your heart and lungs supply increased amounts of blood and oxygen to meet the demands of prolonged physical activity. This can also be referred to as **cardiovascular endurance**.

THE IMPORTANCE OF STAMINA

As of 1994, the American Heart Association identified inactivity as a primary risk factor and one of the leading causes of heart disease. Low stamina levels increase the risk of weight gain, obesity, diabetes and hypertension.
Increasing physical stamina can help reverse inactivity and the health problems they may lead to.

Two-thirds or 66% of people in the U.S. are considered to be overweight or even obese. Obesity is one of the leading causes of death and is responsible for lowering the quality of life.
Obesity is typically associated with diabetes, strokes, heart disease, unnecessary pressure and pain in the joints, less flexibility, lower self-esteem, and much more. However, you can take control over your life by improving your stamina. Improving your stamina will help to reduce these issues and increase your energy resulting in an increase in your quality of life.

Stamina or endurance is a key component in achieving improved fitness levels and decreasing the risk of heart problems.

First-time participants should consult a physician prior to starting an exercise program

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STAMINA

BENEFITS & REASONS

HEALTHIER HEART AND LOWER BLOOD PRESSURE
Your heart is the most important muscle in your body. Strengthening your heart and cardiovascular system will increase your heart's ability to efficiently pump blood and oxygen throughout your body. In addition, your heart will work less, ultimately lowering your blood pressure.

DECREASED STRESS LEVELS
With lowered blood pressure, more efficient blood flow, and better cardio vascular health stress levels tend to decrease as well.

INCREASED METABOLISM
Exercise focused on stamina increases your metabolism resulting in burning more calories and fat aiding in weight loss, even after you finish your routine.

LESS TIREDNESS AND MORE PRODUCTIVITY
The "Runner's High", participating in cardiovascular exercise releases endorphins (chemicals) to the brain. These chemicals are released to make the brain feel pleasure to encourage more stamina exercising. More endorphins and better blood circulation will decrease tiredness and increase awareness resulting in more productivity and energy levels.

HEALTHIER SEX LIFE & INCREASED DRIVE
An increase in stamina will help increase energy exertion and help sustain it.

REDUCED RISK OF DIABETES AND HEART DISEASE
A stronger and healthier heart helps to prevent or reduce the effects of diabetes and heart disease

HIGHER QUALITY OF LIFE
An increase in stamina leads to the ease of everyday tasks with less fatigue.

STRENGHTEN YOUR STAMINA

Stamina Exercises are any activities that increase and sustain your heart rate to your desired heart rate for an extended period of time (see chart below).

- Swimming
- Jogging
- Walking
- Interval training

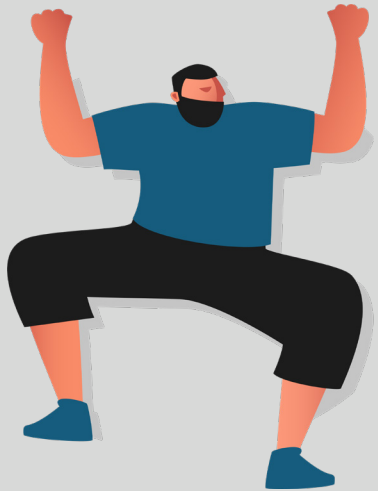
STATIONARY STAMINA DRILL

- Ensure you are properly warmed up and well stretched.
- Begin an easy jog in place for 10 seconds
- After 10 seconds jogging in place, lift your knees high and rapidly for 20 seconds (total of 30 seconds).
- Alternate between an easy jog in place for 10 seconds and rapid high knees for 20 seconds, 3 times for a total of a minute and a half (if 20 seconds is too much try 10 seconds).
- The goal is to reach and sustain your target heart rate.

Breathing is very important during physical activity. Try to breathe through your nose as naturally as possible (with high exertion breathing from your mouth is ok)

3. STRENGTH

- THE IMPORTANCE OF STRENGTH-TRAINING
- BENEFITS OF STRENGTH TRAINING
- FORMS OF STRENGHT TRAINING (ISOMETRIC, ISOTONIC, ISO



THE IMPORTANCE OF STRENGTH TRAINING

Strength training also known as resistance training is important in Improving your heart, balance, bone density and strength, weight, and overall quality of life. Studies show strength training is very beneficial to your health. Resistance training does not have to include lifting heavy weights and is available for all ages of all skill levels.

STRENGTH TRAINING

BENEFITS & REASONS

DEFINE AND TONE YOUR BODY
Exercising with resistance will strengthen and develop your muscles. Strength training improves the amount of calories burned and will help remove the flabby look making you look younger and fitter.

REDUCE FAT AND BURN MORE CALORIES THROUGHOUT THE DAY
Resistance training increases your metabolism and burns more calories. This helps reduce fat and even increases your metabolism after the work out, thus helping you burn fat even after you are done training.

INCREASE BONE DENSITY AND MUSCLE STRENGTH
Bone density and muscle strength decrease with age and this process accelerates as you age especially after the age of 50. However, strength training can help strengthen your muscles and increase your bone density.

EASIER DAILY TASKS
As your muscles and bones get stronger, your daily tasks become easier. Carrying that bag of groceries, getting out of the car, and moving things around the house are all examples of things you might notice getting easier as you improve your strength.

IMPROVED POSTURE, COORDINATION AND BALANCE
Sitting or standing straight can be tiring. Stronger neck, shoulder, back, hip and core muscles make better posture seem like less effort. Coordination is also increased as you start to develop various movements and muscle development. Resistance training requires you to use your stabilizing muscles improving your balance.
This is particularly important for those over 50. One of the most common causes of injury and serious medical problems is falling. The increased strength and balance will reduce the chances of falling.

STRENGTH TRAINING

BENEFITS & REASONS

BOOST ENERGY LEVELS AND MOOD
Studies show resistance training increases energy levels and can relieve stress. With more energy and less stress you become more productive.

DECREASE HIGH BLOOD PRESSURE AND REDUCE RISK FOR HEART DISEASE
Strength training helps blood flow through the body resulting in lower risks of high blood pressure and heart disease.

DECREASE RISK OF OSTEOPOROSIS AND BONE DISEASE
Strengthening your bones helps decrease the risk of having osteoporosis. Resistance training increases bone density reducing the risk of injury.

BOOST IMMUNE SYSTEM
Physical activity increases the productivity of your immune system decreasing the risk of catching the common cold and other illnesses.

INCREASE GOOD CHOLESTROL AND REDUCE BAD CHOLESTROL
Resistance training and a healthy diet increase the levels of good cholesterol and decreases bad cholesterol.

REDUCE RISK OF INJURY
Stronger muscles, tendons, and ligaments are less likely to be injured during Stress and physical exertion. Building muscles around joints such as your knees and back reduce pain and Increase your stability.

IMPROVE SLEEP QUALITY
Your body recovers while it sleeps and therefore, increasing exercise aids in higher quality of sleep because the body is ready to recover.

Isometric exercise is a form of strength training in which the joint angle and muscle length do not change during contractions. Isometrics are done in static, stationary, positions rather than through a range of motion.

ISOMETRIC

Isometrics are very effective for increasing maximal strength in a given position or joint angle.
Two examples are:
Press against a wall

Palms together in front of your chest pressing with equal pressures.

Isotonic exercise occurs when tension remains unchanged as the muscles shorten and lengthen. There are two types of isotonic contractions:

ISOTONIC

CONCENTRIC: A concentric contraction is when the muscle length shortens (the upwards motion of a bicep curl).

ECCENTRIC: Eccentric contractions are when the muscle lengthens (the downward or extension during a bicep curl).

Iso-Motion uses self-resistance exercise methods using your muscle against muscle in a full range of joint rotation and motion. You tense the muscles of a given body part and then move the body part against the tension. Iso-Motion® exercises use the benefits of isometric and isotonic practices to exercise your body while maximizing your range of motion.

Iso-Motion® exercises are difficult to injure yourself during exercising because your own muscles provide the force and as they tire your body resistance used also decreases.

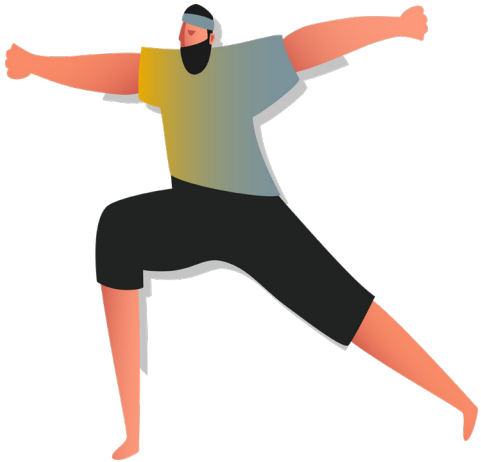
ISO-MOTION®

An example of Iso-Motion® is used within martial arts. The “dynamics of muscle tension” is applied using a person’s movements. The tightening of core muscles with movement allows the individual to change the pace of their motion.

The results of such movements increase a person’s power and speed. Iso-Motion® is a technique that is natural, everyday movement accentuated with varying resistance.

4. NUTRITIONAL

- “YOU ARE WHAT YOU EAT”



“YOU ARE WHAT YOU EAT”

“You are what you eat” there is a reason the quote is so famous; it could not be more true. All the exercising in the world will not give you the tone body you desire if you do not change your diet.
Here are some quick tips.

Why a balanced diet?

The USDA claims 4 of the top 10 leading causes of death in the U.S. are directly affected by your diet (heart disease, cancer, strokes, and diabetes). Below are some basic tips to follow.
A well balanced diet is important to your body’s organs and tissues that need certain nutrients to work properly and effectively. A healthy diet gives your body the nutrients it needs to help fight disease and infection but also affects your body’s performance and energy levels. Many foods can cause an increase in energy only to result in a crash a few hours later (caffeine or sugar). Proper nutrition aids in increasing and sustaining your energy levels.

NUTRITIONAL NEEDS

TIPS TO TRY

1. Avoid foods with saturated and trans fat and high sugar content (including most juices). Excess sugar is stored as fat and increases risk of diabetes.

2. Foods containing vitamins A, C, D, K, and B12 are very important. Try to find sources of food that are high in vitamins.

3. Dark leafy greens such as spinach, kale, and broccoli generally contain the most nutrition and can be included in most of your meals.

4. Fiber is important to a healthy digestive system. Look for food high in fiber.

5. Buy whole grains when it comes to food like bread and pasta.

6. Protein is one of the most important nutrients for brain and muscle development. Make sure to include protein in your diet. Lean meat, beans, and nuts are good sources of protein to include in your diet.

7. Healthy oils (monounsaturated and polyunsaturated fats) are important but consume sparingly, you do not need much. Dressings and mayonnaise are high in fat content and should be used lightly. Try to replace fattier vegetable oil with olive oil and avoid deep-fried foods.

8. Drink plenty of water consistently throughout the day. Avoid drinking a lot of water at once; try to constantly sip water throughout the day.

NUTRITIONAL NEEDS

RULE OF THUMB

- If you consume more calories than you burn it will result in weight gain. If you consume less calories than you burn this results in weight loss.
- The simplest diet in the world is to cut your portions (assuming you are getting excess calories).

FOR THOSE STARTING OUT, TRY THIS

- Eat your typical diet for 30-days, but only have ONE portion.
- This will prepare your body for portion control with your current “comfort” food.
- After 30-days, make the switch to healthier foods. Your body will respond much more favorably to the change and you will already have experienced weight loss from the reduced portions.
- Do not snack throughout the day, especially with junk food. If you must snack for an energy boost try something natural such as fresh vegetables or low sugared fruit.

NUTRITIONAL NEEDS

FOOD FOR EVERY HOUSEHOLD

Bell Pepper: Bell peppers are high in vitamins, low in calories and fat, and have antioxidant properties.
Use bell peppers chopped in salads or dishes or sliced to eat as a snack

Spinach: Spinach is high in essential vitamins and minerals.
Use spinach in salads, dishes, or it even mixes well in smoothies for increased nutrition

Broccoli: Broccoli aids in detoxing the body due to its high vitamin and mineral content. It is low in calories and fat while providing essential nutrients. Chop up broccoli for salads and add it to your favorite dishes.

Nuts: Nuts are high in fiber, protein, and good fats. Nuts are great as a snack or to include in your salads.

Kiwi: Kiwi is a tasty fruit high in key vitamins for a healthy immune system

Yogurt: Yogurt (sugar free) is a good source of calcium and most importantly probiotics. A type of bacteria which helps maintain healthy levels of good bacteria in your digestive system to help in regular and healthy bowel movements.

Beans: Beans (not refried) are a good source of protein and fiber.

Ginger, Garlic, and Cinnamon: Try to include these antioxidant ingredients for your favorite dishes.
Make tea by boiling Ginger and Cinnamon with a dash of honey as sweetener for a refreshing yet healthy detoxifying beverage (serve hot or cold)

5.

FITNESS FOR YOU

ANYONE, ANYWHERE

FITNESS FOR YOU

While seated, compress your hands together (palm to palm) in front of your chest. Use force compressing your hands together (ensure you are applying enough force to feel exercise) hold for 10 seconds. Repeat for three sets. Engage your core by tightening your abs (stomach)

BENEFIT
Strengthen your chest, shoulders, and core for a stronger central foundation.

Next continue the same compression in front of your chest, however, this time while maintaining tension move your arms from left to right (trying to extend your arms as far as you can while maintaining pressure). Alternating from left to right perform 10 repetitions for each side.

BENEFIT
Strengthen your chest, shoulders, and core in a full range of motion for mobility.

Place your right hand over your left hand (palm to palm) on the left side of your body (while seated your hands should be to the left of your thigh) Extending your range of motion as much as you can, perform 10 repetitions (with your elbow against your body, do not move the elbow) bending your arm like a curl. Lift your left hand while your right hand is pressing down from the side of your left thigh to your left shoulder. Alternate sides performing the exact exercise on the right side.

BENEFIT
Strengthen your arms' biceps and triceps.

NUTRITIONAL NEEDS

BREATHING EXERCISES

EXERCISE 1

Stimulation

- Inhale and exhale rapidly (equal in duration) breathing through your nose with your mouth closed.
- Breathe in and out as quickly as possible for 5-10 seconds.
- Relax and breathe normally
- Repeat 3-5 times if necessary

You may try to increase the time during rapid breathing as you feel comfortable. If you feel uncomfortable, dizzy, or lightheaded. Stop the exercise.

Benefit

raise energy levels and awareness.

EXERCISE 2

Relaxation

- Exhale entirely through your mouth
- Close your mouth and inhale through your nose for 4 seconds
- Hold your breath for 7 seconds
- Exhale completely through your mouth for 8 seconds (lips tight like a whistle)
- Repeat for a total of five breaths.

Benefit

Relax and gain composure when stressed. Release tension, slow your heart rate, and even help fall asleep.

*If you are unsure if you are capable of exercise, consult with your doctor, a qualified gym instructor or physiotherapist. Ensure you are exercising using your joint's full range of motion.

ABOUT THE AUTHOR

BULLWORKER'S MISSION

Here at Bullworker, we wish to give you the information, inspiration, and most importantly convenient products to reach your fitness goals to enjoy a healthier quality of life. Bullworker Products have been redefining fitness routines for over 50 years using scientifically proven principles that deliver fat burning, muscle building, and body toning results without lifting heavy weights or spending hours in a gym. Bullworker products can be used individually or inter-changed to deliver optimum cross-training benefits. Whatever your fitness goals; Bullworker delivers:

- Muscle Building
- Body Toning
- Fat Burning
- Cardio
- Supersets
- IsoMetric
- IsoMotion
- IsoTonic
- Stamina
- Strength
- Flexibility

ABOUT THE COMPANY

Bullworker
(602) 222-5451
CEO: John Hughes
President: Chrisman Hughes

www.Bullworker.com
info@bullworker.com
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APPENDIX

Resilience
Resilience is the capability of a strained body to recover its size and shape after deformation caused especially by compressive stress. Your body is important. You must develop your Body so it is resilient.
Everyday fatigue is a sign your body lacks resiliency. You must be able to bounce back from illness and fatigue. A resilient body has stamina. Resilient training allows you to recuperate quickly from fatigue and over exertion.

Stamina / Endurance
Stamina and endurance are your ability to exert yourself for periods of time and sustain your performance. It is usually improved through aerobic or anaerobic exercise.
Aerobic (direct translation is presence of air) exercise is also known as cardio or cardiovascular exercise. The purpose of aerobic exercise is to improve your body's efficiency in transporting oxygen through your blood stream to sustain energy levels during exertion. Aerobic exercises range from low to high intensity for relatively long periods of time.
Anaerobic (direct translation is without air) exercise uses high intensity short intervals where your body's demand exceeds the supply of oxygen resulting in the use of energy sources stored in your muscles. Anaerobic training uses intervals of high intensity exercise (only seconds to a few minutes) to improve speed and power and to increase your maximum oxygen consumption.
Training for endurance can have a negative impact on your ability to exert strength unless you also undertake resistance training to counteract this effect.

Repetitions
Repetitions or reps are the amount of times you perform a specific exercise. Reps are very important in order to approach exercise with a measurable system. A recipe for the best chocolate chip cookies is written down so you can recreate the best cookies. The same applies to exercise.
A measurable system allows you to replicate the process in order to achieve the results you desire. For example, if you do 10 curls you' are performing 10 reps of the exercise. Reps give you a goal to push towards, accomplish, and then measure for future goals.

APPENDIX

Sets
Sets are a group of repetitions, also an important part of exercising because they allow for a systematic approach to ensure consistency and improvement. For example if you are only going to do 10 curls one time compared to 10 curls, take a break, 10 more, another break, and then 10 more.
Which do you think would provide your body with a better workout? Performing the curls 3 separate times or 3 sets of 10 reps would. Therefore, we want to keep track of our accomplishments in order to measure our improvement.

Superset
Supersets are the process of rather than taking a break after a particular exercise you move on to perform another exercise. For example if I do the curls mentioned above rather than taking a break I would immediately do 5 pull ups. After I have finished both exercises I can pause to recover and then start again.

Intensity
Intensity is the amount of energy in a given amount of time.

High Intensity
A high intensity training program would consist of more supersets with fewer breaks creating a higher heart rate which results in more calories burned (during and after), more stamina, and more efficient use of time. During high intensity exercises it is important to have a target heart rate in mind and maintain the desired heart rate.

Low Intensity
A low intensity workout allows more breaks and a lower heart rate

APPENDIX

Target Workout
You need to tailor your workout to address specific body areas. There are exercises to exercise the entire body at once but in order to fully develop each muscle group, targeting with specific workouts is needed. For example, if you want bigger and stronger arms, you need to use exercises that target those particular muscles such as curls.

VOLUME
Volume refers to the quantity of your workouts or duration of time for each workout. You can increase or decrease the volume by either training more or less often per week or by training for longer or shorter periods of time (see variety below).

VARIETY
Switching around your workout routine, vary your workouts by changing exercises, the rep scheme or your training volume. Variety challenges your muscles and forces them to adapt with increased size and strength, also known as muscle confusion. Your muscles get used to workouts and using the same workout creates less and less results.

PROGRESSIVE OVERLOAD
Gradually increasing your weights forces your muscles to continue to be challenged and get stronger. Remember to warm up to higher loads.

REST
You need to rest between sets. If your goal is muscle size or endurance, rest for 30-60 seconds or so. If you want muscle strength, allow up to 2-4 minutes between sets.

APPENDIX

RECOVERY
Muscle needs time to repair and grow after a workout. A good rule of thumb is to rest the muscle group for at least 48 hours to allow sufficient recovery time.

GENERAL SAFETY GUIDELINES
Check the equipment you use, faulty equipment will significantly increase your risk of injury. Cleaning and properly storing your equipment to increase the lifespan and maintain condition of your equipment is important.

Warm up and cool down before and after exercise. Incorporate a stretching routine before and after exercise. Wear appropriate clothing - natural fibers “breathe” better than synthetic material to keep you cooler.

Breathing during exercise is extremely important - exhale at the point of greatest exertion and do not hold your breath. Control your movements at all times – exercising using momentum or improper form increases your risk of injury and decreases results. Make sure you use proper lifting technique.

** If you are unsure if you are capable of exercise, consult with your doctor, a qualified gym instructor or physiotherapist. Ensure you are exercising using your joint’s full range of motion.*