

# Hand in Hand Newsletter

## Just Breathe

### The Art and Science of Breathing and Your Health

Article by

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Information cited: The Science of Breathing by Sarah Novotny and Len Kravitz, PHD, University of Mexico.

Benefits of Deep Breathing by UB Therapist Andrea Watkins, LCSW, UrbanBalance.com



### Other articles in this issue

Nasal Vs Mouth Breathing

How to Manage COVID-19 Anxiety, Worry, Stress & Fear

Breathing Exercises

After School Recipes

#### **Breathing**

The Oxford Dictionary defines Breathing as, "The process of taking air into and expelling it from the lungs." Breathing is essential to every body function. COVID-19 has brought increased attention to this fact. We need to breathe. This seems simple but many of us don't realize the importance of breathing or breathing well. Breathing is automatic. We associate it with being alive but are not mindful of how we feel when we breathe or how we are breathing. Maybe it is time to bring attention to the importance of this automatic miracle and recognize that caring for our lungs by simply breathing well can be the most life changing thing you can do for your health.

#### **Breathing Well**

The everyday experiences of breathing for most individuals is more inconsistent than you would think. Some people tend to hold their breath and not realize it. Some have short choppy, erratic breathing. Many people suffer from Mouth Breathing which causes multiple health problems vs. Nasal Breathing which could reduce negative health effects and could reverse potentially life threatening illnesses such as high blood pressure. Practices in yoga often first teach individuals to observe their own breathing to ultimately familiarize the student with the sensations of inhaling and exhaling. If you're breathing effectively according to the National Heart, Lung, and Blood Institute, your breath will be smooth, steady, and controlled. Your breath should be silent or quiet, your abdomen area will expand with each inhalation and contract with each exhalation.

#### **The Science of Breathing**

Breathing consists of two phases, inspiration and expiration or more commonly called, inhale and exhale. When we inhale we use the diaphragm muscle and external intercostal muscles to expand our lungs and forcing air into our lungs. With each breath, air passes into the microscopic air sacs in the lunges called alveoli. Here the exchange of oxygen and carbon dioxide between the air and the blood in the lungs occurs. Oxygen is loaded into the red blood cells while carbon dioxide is unloaded from them and into the air. During exhale the diaphragm and external intercostal muscles relax, forcing the air out of the lungs.

**Read More on Page 2!!**

# "Inhale the future, exhale the past."

-Author Unknown

## Just Breathe Continued from Page 1....

Breathing practices can help to enhance the effectiveness of breathing by exercising the diaphragm and increasing our awareness of how we breathe. Some postures and patterns are more effective for comfortable breathing than others. Knowing this and using stretches to correct posture can greatly effect our breathing and offer a way of correcting some health issues simply by breathing easier. Page 3 of this Newsletter provides breathing exercises that can be used to calm stressful situations and promote better respiratory health.

## Health Benefits of Deep Breathing

Deep breathing has many health benefits.

- 1) Decreases stress, increases calm.** When you become stressed or anxious, your brain releases cortisol, the "stress hormone." By taking deep breaths, your heart rate slows, more oxygen enters our blood stream and ultimately communicates with the brain to relax. Deep breathing also ups your endorphins, the "feel good" chemical.
- 2) Relieves pain.** As stated above, deep breathing triggers the release of endorphins, which not only helps create a feeling but also combats pain.
- 3) Stimulates the lymphatic system** (Detoxifies the body). Breathing releases carbon dioxide, which is important to fully release. Actually, breathing is in charge of 70% of cleansing the body of toxins (the other 30% is through bladder and bowels.) If you do not breathe fully, your body must work overtime to release these toxins.
- 4) Improves immunity.** When your blood is fully oxygenated, it carries and absorbs nutrients and vitamins more efficiently. Essentially, the cleaner the blood, the harder it is for illnesses to stay put in your system.
- 5) Increases energy.** The more oxygen that is in the blood, the better our body functions. It also improves our stamina.
- 6) Lowers blood pressure.** As your muscles relax, this allows your blood vessels to dilate, which improves circulation and lowers blood pressure. Deep breathing also slows and regulates the heart rate, which also helps with lowering your BP.
- 7) Improves digestion.** The more you breathe deep, the more healthier blood flow you will produce, which in turn promotes your organs to function more effectively, including your intestines.
- 8) Helps support correct posture.** Next time you breathe in, notice that you simultaneously lengthen and straighten your spine. In order to take a deep breath in, your lungs take up maximum space, your diaphragm pulls down, so in turn your torso straightens in order for this to be possible.

## Nasal Breathing vs. Mouth Breathing

Studies have shown that Nasal Breathing can improve your overall health and Mouth Breathing can be quite harmful. There are multiple articles on this topic. Specifically an article from the EC Pulmonology and Respiratory Medicine, titled "The Athlete's Secret Ingredient: The Power of Nasal Breathing", where author Michael Flanell, discusses the benefits of Nasal breathing specifically for athletes, and the issues associated with Mouth Breathing, such as; a weakened posture, reduced ability to efficiently use oxygen and the inability to filter the air breathed, therefore creating negative health effects such as: low energy, reduced stamina, high blood pressure, reduced ability to cope with stressors, lower immunity and sleep issues such as snoring or sleep apnea. Nasal Breathing offers significant advantages over Mouth Breathing. Some advantages include a better nights sleep, stronger immune system, lower blood pressure, more energy due to the ability of your body to properly use oxygen and put out CO<sub>2</sub>, a better immune system due to the nasal cavities ability to filter and humidify the air coming through on its ways to the lungs. For more on this article visit:

<https://www.ecronicon.com/ecprm/pdf/ECPRM-08-00397.pdf>



# How To Manage COVID-19 Anxiety

## Step 1

Remember it is normal to feel concern, you are not alone in your anxiety.

## Step 2

Breathe.

Deep breathing will help achieve a state of calm & reduce stress hormones. Try this: Breathe in through your nose for 6 counts, hold for 4, and out for 7.

Repeat as necessary.

## Step 3

Reach out.

Remember Step 1- you are not alone. Your friends are probably anxious too. Talk to them. We are physically distanced, not socially.

## Step 4

Set Limits.

Some news is helpful, too much news will only fuel your anxiety. Set an amount of time each day to absorb new information and get your news from a reliable source.

## Step 5

Keep to a daily routine. Structure is a good way to keep anxiety at bay and maintain a sense of normalcy.

## Step 6

Focus on Healthy Habits.

Turn your attention to things you can control, such as eating a healthy diet, exercise, drinking water, getting enough sleep and avoiding drugs and alcohol.

## Need Help?

**Disaster Distress Helpline –**  
Call 1-800-985-5990 or text TalkWithUs to 66746 to connect with a trained crisis counselor in the U.S.

**Crisis Text Line: 741-741–** Text with a trained crisis counselor in the U.S.

**National Suicide Prevention Lifeline –** If you're feeling suicidal, please call 1-800-273-TALK (8255) in the U.S. or visit IASP or Suicide.org for a helpline in your area

**National Domestic Violence Hotline –** Isolated at home in an abusive situation and need help? call 1-800-799-7233.



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# Breathing Exercises

## Shoulder Roll Breath

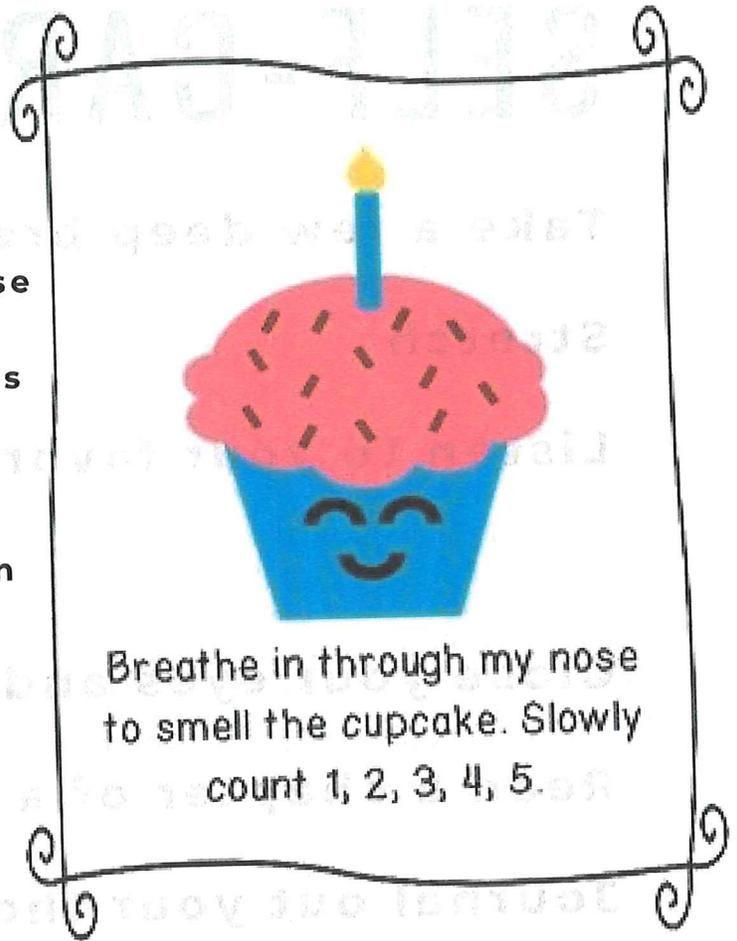
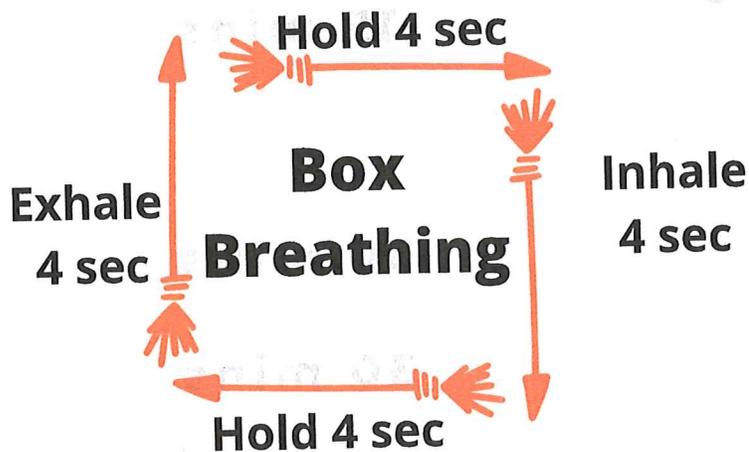
**How To:**

Take a deep breath in through your nose and relax your entire body.

Now roll your shoulders up to your ears as you inhale deeply for a count of 3. Breathe out through your mouth and roll your shoulders down and back (as far away from your ears as you can get) as you exhale for a count of 4.

Repeat slowly in a continuous movement of shoulder rolls, while breathing in and out.

This should feel awesome.



## 4-7-8 Breathing

Breathe in through nose counting to 4

Hold for 7 counts  
Exhale for 8 counts

start again...

## Mountain Breathing

This breath can be done sitting or standing.

**How To:**

Inhale through your nose and raise your arms high above your head.

Bring your palms together above the top of your head.

Imagine you are as tall as a mountain.

Ground your feet into the floor. Imagine your feet like roots, you are strong, sturdy and tall.

Exhale through your mouth and bring your palms together in front of your chest.

Repeat this sequence 5 times.

EASY. FUN. FREEZABLE. YUM



RECIPES COURTESY OF THE  
FOOD NETWORK KITCHEN  
FOODNETWORK.COM/RECIPES

# AFTER SCHOOL RECIPES

KIDS CAN  
HELP TOO!!

## Easy Strawberry Cheesecake Crackers

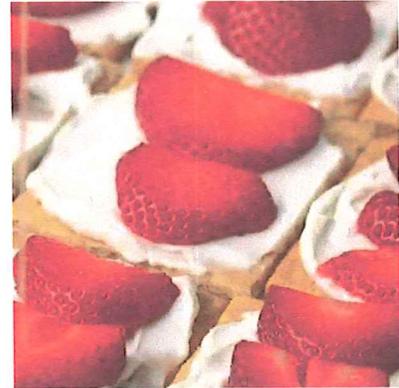
### Ingredients

for 12 servings

- 12 graham cracker squares
- ½ cup cream cheese
- 1 cup strawberry, sliced
- honey

### Preparation

- Spread cream cheese onto each graham cracker.
- Top with strawberries.
- Drizzle with honey.
- Enjoy!



## Fun English Muffin Mini Pizzas

### INGREDIENTS

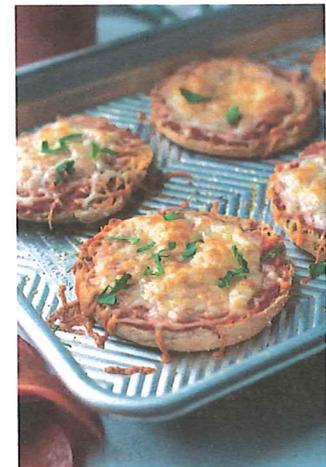
- 1 tablespoon olive oil
- 1/4 teaspoon garlic powder
- 1/4 teaspoon dried oregano
- 6 English Muffins separated into halves
- 1/3 cup tomato sauce
- 8 ounces mozzarella cheese shredded

### INSTRUCTIONS

- Preheat oven to 425 degrees.
- Separate the English Muffins into halves and place onto a baking sheet, nook and cranie side up.
- Mix together olive oil with garlic powder and oregano. Brush on each English Muffin half. Alternatively, just drizzle with olive oil and sprinkle with seasonings.
- Toast in oven for 5 minutes, or until just browned.
- Remove toasted English Muffins from oven. Top each half with 1/2-1 tablespoon tomato sauce and cover with cheese.
- Return to oven and bake until cheese is melted and bubbly, about 5 minutes.

### NOTES

- Feel free to add any toppings to these mini pizzas as desired.
- Instead of baking, you can broil or microwave these mini pizzas. If using a broiler, just be careful not to burn.



## Freezable cheddar BBQ Meatloaf Muffins

### Ingredients

- 2/3 cup milk
- 1/2 cup plain dry breadcrumbs
- 2 pounds (ground beef, pork or turkey)
- 1 1/4 cups shredded Cheddar (about 5 ounces)
- 1/2 cup barbecue sauce
- 1 teaspoon kosher salt
- 1/2 teaspoon ground black pepper
- 4 small green onions, finely chopped (about 1/3 cup)
- 2 cloves garlic, minced
- 1 large egg

Serving suggestions: mashed potatoes and a green salad

1. Preheat the oven to 375 degrees F.
  2. Pour the milk over the breadcrumbs in a large bowl and stir to combine. Add the meat, 1 cup of the cheese, 1/4 cup of the barbecue sauce, the salt, pepper, green onions, garlic and egg and mix with your hands until just combined.
  3. Divide and shape the mixture into 6 balls and arrange the balls in a 6-cup nonstick muffin pan. Place the muffin pan on a rimmed baking sheet and brush the remaining 1/4 cup barbecue sauce on top of the meat.
  4. Bake for 40 minutes, rotating the pan halfway through cooking. Sprinkle with the remaining 1/4 cup cheese. Continue to bake until the meatloaf muffins are cooked through to an internal temperature of 165 degrees F, about 5 minutes more; the interior muffins may take a little longer to cook. Cool 5 minutes in the pan.
- Arrange on a serving platter and serve with mashed potatoes and a green salad. Can be frozen for weeknight meal or quick and yummy snack!



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