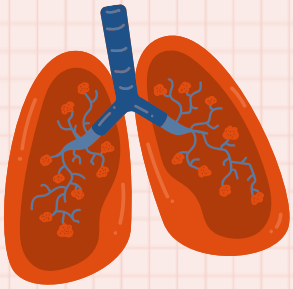
Find Your Perfect Pace

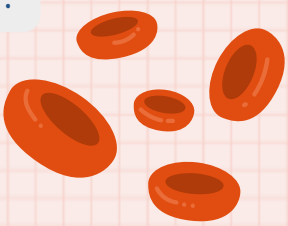
By Vital Breathwork LLC

Discover your ideal heart rate with this engaging activity designed to enhance your exercise efficiency, improve your breathing control, and boost your overall performance.

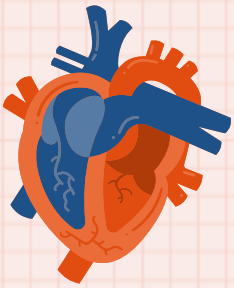
Learn more



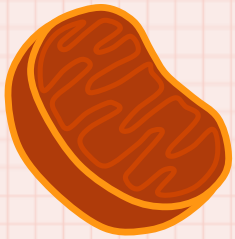
1. Lungs pull out oxygen from the inhaled air.



2. Hemoglobin (a protein in red blood cells) carries oxygen in the blood.

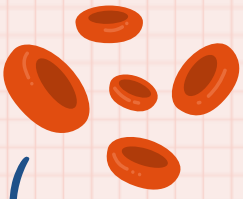


3. Oxygenated blood enters the heart, and is pumped out to the organs and muscles.



4. Myoglobin (a protein found in muscles) receives the oxygen and delivers it to the mitochondria.

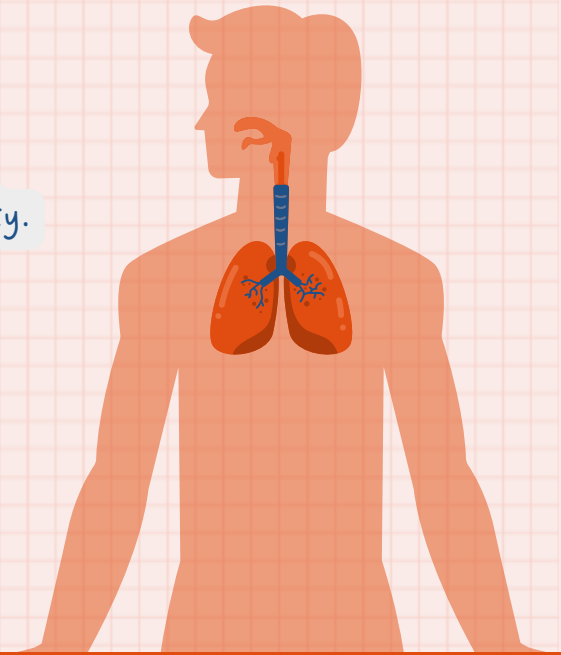
5. Mitochondria then generates energy and creates carbon dioxide as waste.



6. Muscles in the body use the energy during a physical activity.

7. Blood picks up the carbon dioxide and returns to the heart, where the oxygen-poor blood is pumped out to the lungs.

8. Lungs breathe out the carbon dioxide, and the cycle repeats.



Reference:

Muise E, Gordon R and Ericson Woods D (2021) Ready, Set, Go! How the Heart and Lungs Respond to Exercise. Front. Young Minds. 9:682141. doi: 10.3389/frym.2021.682141

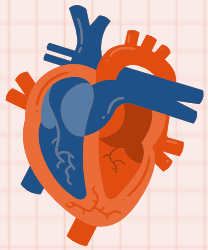
Heart & Breathing Rate after Exercise

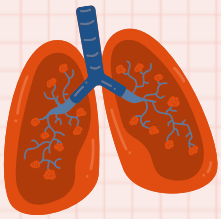
By Vital Breathwork LLC

Learn more

1 Resting heart rate

Press two fingers on the side of your neck and feel your pulse. Count the number of beats in 6 seconds. Multiply by 10 to get your heartbeats per minute.





2 Resting breathing rate

Count the number of breaths you take in 6 seconds. Multiply by 10 to get your breaths per minute.

Days	Resting Heart Rate	Resting Breathing Rate
Day 1		
Day 2		
Day 3		

Activity 1: 30 seconds Jumping Jacks

Do jumping jacks for 30 seconds, then take note of your heart rate and breathing rate.

Days	Resting Heart Rate	Resting Breathing Rate
Day 1		
Day 2		
Day 3		

Rest for 60 seconds!

Activity 2: 60 seconds Jumping Jacks

Do jumping jacks for 60 seconds, then take note of your heart rate and breathing rate.

Days	Resting Heart Rate	Resting Breathing Rate
Day 1		
Day 2		
Day 3		

Rest for 60 seconds!

Activity 3: 90 seconds Jumping Jacks

Do jumping jacks for 90 seconds, then take note of your heart rate and breathing rate.

Learn more

Days	Resting Heart Rate	Resting Breathing Rate
Day 1		
Day 2		
Day 3		

Rest for 60 seconds!

Analysis

How did the exercises affect your heart rate and breathing rate? How did you feel after each exercise?

What's Your Optimal Heart Rate?

If your heart rate and breathing increased by Activity 3, it indicates that your body struggled to efficiently convert oxygen into energy, leading to fatigue and hyperventilation. This shift moves you from an aerobic to an anaerobic state. To find your optimal heart rate, identify the point where you can maintain controlled breathing, known as Heart Rate Variability (HRV). When breathing becomes shallow and rapid, HRV decreases, indicating an inability to manage exercise stress. To improve your HRV and reach your fitness goals, focus on controlling your breathing and reducing stress. This might involve stepping back from intense cardio and weightlifting to engage in activities like diaphragmatic breathing, yoga, or walking.

Try This!

Warm Up: Begin by walking while humming for 5 minutes. As you stroll at a comfortable pace, inhale through your nose and hum like a bee for as long as you can without feeling breathless. If you find yourself gasping for air after humming, shorten the duration. This practice helps increase carbon dioxide and nitric oxide levels in your body, promoting muscle relaxation, opening airways, and enhancing oxygen delivery to your muscles when you start exercising.

During Exercise: As you exercise, become mindful of your breath patterns. Aim to balance your breath so that your inhales and exhales are evenly paced (3:3) or (5:5). Focus on expanding and contracting your diaphragm fully. If your breathing becomes unbalanced and your exhales are shorter than your inhales, wait to resume exercise until your breath returns to a steady rhythm.

After Exercise: Practice recovery breaths, for 2-3 minutes, by making your exhales twice as long as your inhales (2:4) or (4:8). This will reduce your stress levels that increased during exercise. Then practice a breath hold. Take a full breath in, breathe fully out, and hold your breath out between 30-90 seconds. This will increase carbon dioxide levels in the body helping to increase oxygen delivery, repair and restore muscles, and enhance strength, endurance, and stamina in future work-outs.