



Education





Everton in the Community is one of the UK's top sporting charities and is considered one of the Premier League's leading community schemes due to the quality and reach of its programmes.

Recently visited by The Duke of Cambridge to find out more about its work and how it uses its influence to support its fans and community and address key social issues affecting the local community, the Club's official charity has been at the forefront of social intervention across the Liverpool City Region since 1988.

Everton Football Club resides in the Kirkdale ward of Liverpool, which is in the most deprived 5% of neighbourhoods nationally. More than half of the children in the area live in poverty while the area in general faces challenges such as high unemployment, crime and health, housing and education problems.

Everton in the Community delivers more than 40 programmes a year, specifically designed and developed to combat these challenges which are prevalent across Merseyside. Its social programmes tackle issues such as mental health, employability, dementia, education, disability, poverty and homelessness.

The charity's programmes support people of all ages, cultures and backgrounds from over 130 venues across the city region. From delivering the Premier League Primary Stars programme to school children to supporting the elderly members of the Liverpool community who are suffering from social isolation, Everton in the Community is open and inclusive to all.

What happens to our heart rate when we exercise?



Lucas Digne

Heart rates are recorded in beats per minute (bpm). However, not everyone’s heart rate will be the same. When stationary (not doing physical activity), our heart rate is resting. This should range between 60 bpm and 100 bpm, with the average heart rate being 72 bpm. Before we start, can you find your resting heart rate?

Let’s explore the impact of our heart rate when taking part in different physical activities. It is up to you to chose eight activities that you would like to complete in your circuit using the skill cards provided. You should complete each activity for one minute before finding and measuring your heart rate for 30 seconds, counting how many times it beats. You can then double this amount to find out your bpm. Ask a friend or parent to complete this experiment with you so that you can compare your results! Once you have completed your circuit, measure your heart rate every minute for three minutes to assess the impact after exercise and how you body recovers.

How do I find my heart rate?

Follow this QR code to take you to the NHS website for informative advice on how to find your pulse on your wrist or neck.



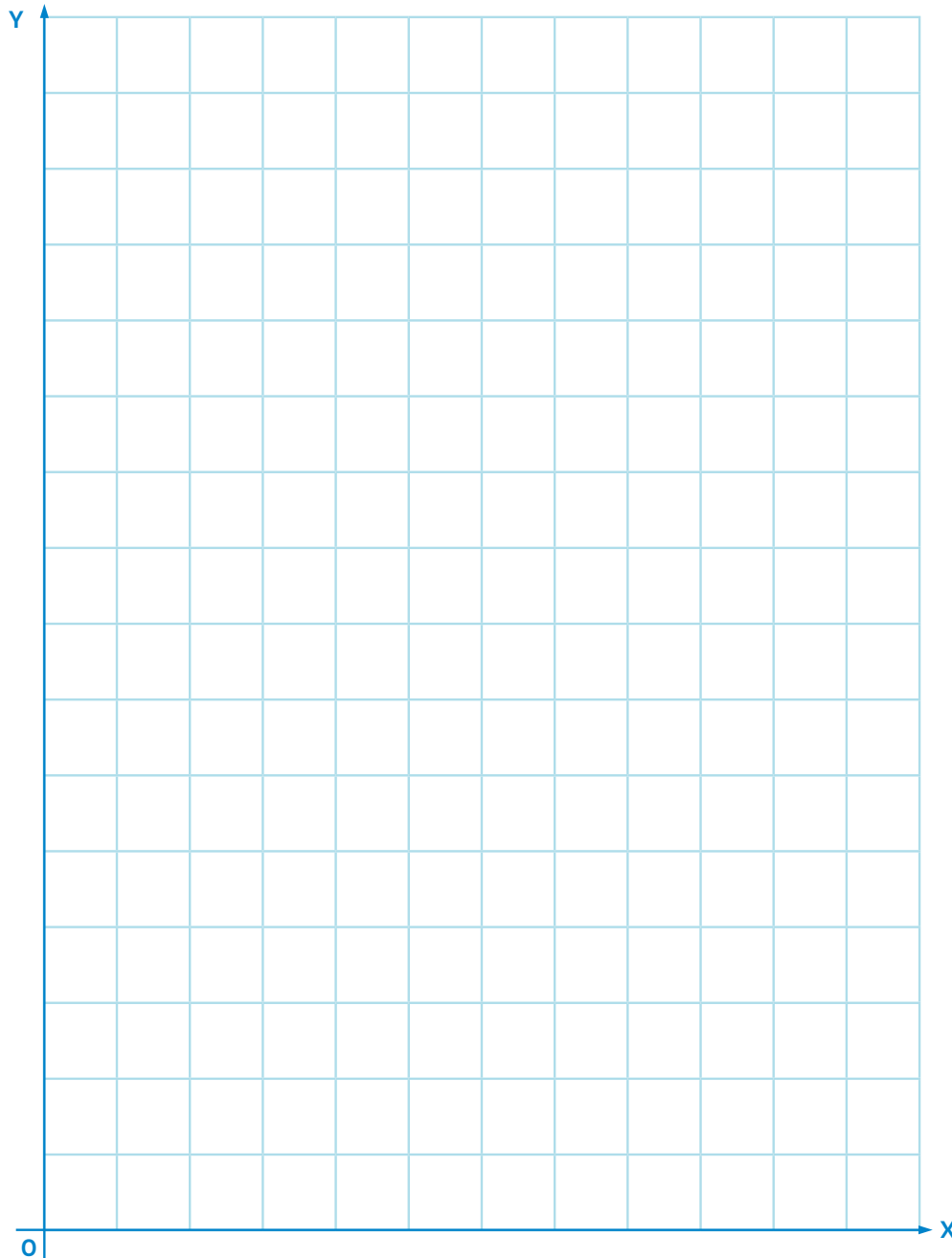
My resting heart rate is bpm

<https://www.nhs.uk/common-health-questions/accidents-first-aid-and-treatments/how-do-i-check-my-pulse/>

Prediction - What do you think will happen?

How will we ensure it is a fair test? What variables will remain the same?

Type of Exercise	How many did you complete in a minute?	Beats in 30 Seconds	Heart Rate (bpm)	Recovery time
				One minute
				Two minutes
				Three minutes



Now it's time to plot your results on the graph paper to reflect how each activity impacted your heart rate. You can represent your results however you chose, but you must include a title and labels for your x and y axis. If you're struggling, use the QR code for support on drawing graphs.



Anthony Gordon



<https://www.bbc.co.uk/bite-size/articles/zqv8bqt>

Challenge:

Can you also record a friend/parents heart rate on your graph? *Tip- Make sure you use a different colour so you can compare the differences. Draw a key to support this.*

What impact did exercise have on your heart rate?

Which activity increased your heart rate the most? Why?

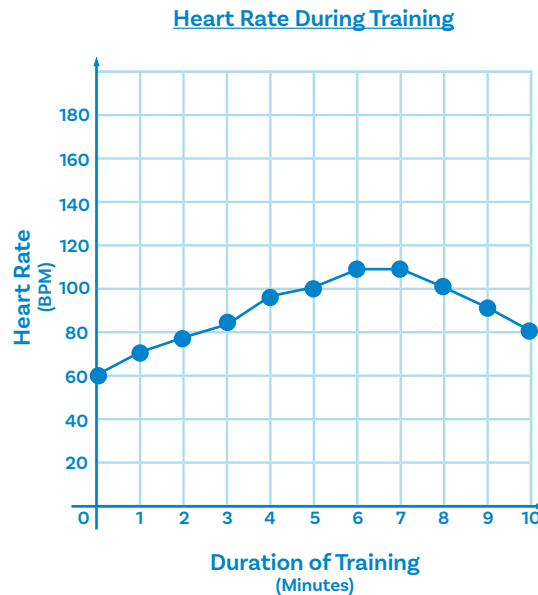
Did your heart rate remain the same after exercise? Explain what happened.

What other changes did your body make during exercise?

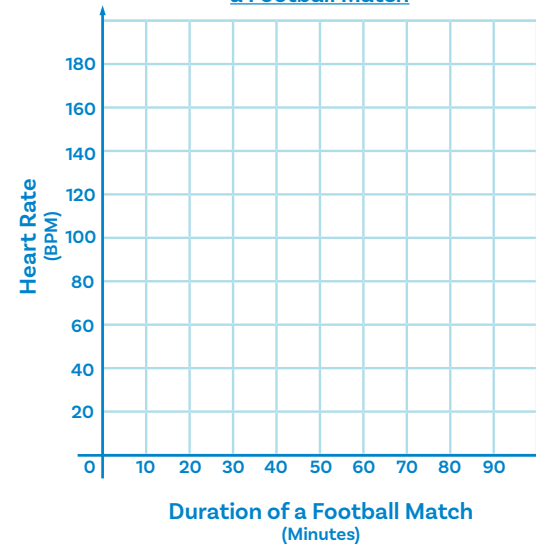


Seamus Coleman

- How long did it take for my heart rate to reach its highest level?
- What was my heart rate at the start of the experiment?
- What was the heart rate likely to have been after three and a half minutes?
- When do you think I stopped training?
- When was my heart rate increasing the most?



The Heart Rate of a Striker During a Football Match



Dominic Calvert-Lewin

Can you draw a line on the graph to represent my heart rate pattern in a football match (striker)? Make sure you can explain your concept. Consider: Would this differ between different players and positions?

Can you think of any other factors that could impact a footballers heart rate during a match?



Jordan Pickford

Did you know?

- Your heart is one of the most important organs in the human body. It is the size of your fist and is well protected by your rib cage.
- Your heart is made up of four chambers - the left atrium, right atrium, left ventricle and right ventricle.
- Over a lifetime, the heart beats around 2.5 billion times!
- Our hearts pump about 2,000 gallons of blood through 60,000 miles of blood vessels every day!
- The beating sound your heart makes is caused by the opening and closing of its valves.

Squat, Squat, Lunge, Lunge



1. Start with your feet a bit wider than shoulder-width apart.
2. Squat down twice.
3. Lunge back with one leg, return to standing and then lunge back with the other leg.
4. Repeat.

Try and stay balanced!

Walk Outs



1. Start standing tall.
2. Place both hands on the floor and walk them out into a press-up position.
3. Tap each shoulder with the opposite hand one at a time.
4. Walk your hands back and stand up tall.

Box Push-Ups



1. Start with your arms straight and your hands and knees on the floor.
2. Lower your upper body down towards the floor by bending your arms.
3. Straighten your arms to bring your upper body back up again.

Jumping Twists



1. Jump and twist one way, staying on the spot.
2. Jump and twist the other way staying on the spot.
3. Use your arms to help you twist left and right.

Wall Squat



1. Make sure your back is flat against the wall with feet firmly on the ground, shoulder width apart.
2. Slide your back down the wall bending your knees until there is a 90 degree angles.
3. Your knees should be directly above your ankles.
4. Hold the position for the time limit, contracting your abdominal muscles.

Plank



1. Begin by starting in a press up position, before bending your elbows and resting your weight on your forearms.
2. You should aim for your body to be in a straight line.
3. Use your abdominal muscles to engage your core.

Burpees



1. Start by standing up straight.
2. Move to a squat position with your hands on the floor.
3. Jump your feet outwards (plank position before jumping feet back into the squat position).
4. Jump up straight with arms in the air before repeating.

Sit Ups



1. Lie flat on your back with your knees bent and feet flat on the floor.
2. Place your hands behind your head, with your shoulder blades back so that your elbows are pointing outwards.
3. Squeeze your stomach muscles, lifting your shoulders and back of the floor, raising your body upwards.
4. Lower your body back down before repeating.

Star Jumps



1. Start with your feet close together.
2. Jump and land with your feet wide apart.
3. Stretch your arms out above your head.
4. Jump your feet in and your arms down.

Squat



1. Start with your feet a bit wider than your shoulders.
2. Bend your knees, lowering your body as if you are sitting in a chair.
3. Stand up tall again.
4. Keep a straight back.

Lunges



1. Start with your feet together.
2. Step forward with one leg, lowering your hips until both knees are bent at about a 90-degree angle.
3. Stand up straight.
4. Repeat with your other leg.

Squat Knee Up



1. Start with your feet a bit wider than your shoulders.
2. Bend your knees as if sitting in a chair.
3. Stand up straight.
4. Lift one high knee.
5. Bring your elbow to your knee.
6. Repeat, this time using the other knee.

Step Ups



1. Step your right foot up onto a bench/step before stepping your left foot up.
2. Then step down bring your right foot back to the ground and then your left.
3. Switch which leg you start with between each set.

Running and Punching



1. Run on the spot.
2. Punch your hands forward at shoulder height.
3. Keep your knees high.
4. Stretch your arms and punch your hands.

Arm Circles



1. Stand with your feet shoulder-width apart and extend your arms with palms facing the floor.
2. Circle your arms forwards using controlled motions, making the circles gradually bigger.
3. Reverse the direction after 15 seconds and circle your arms backwards.

Tricep Dips



1. Start by sitting on a bench or chair.
2. Slide your bottom off the chair and support your weight using your arms.
3. Place your legs out straight in front, placing the weight on your heels.
4. Bend your elbows, lowering your body until your arms are at a 90 degree angle. Extend your arms and repeat.

Mountain Climbers



1. Get on your hands and feet.
2. Keep your back and legs in a straight line.
3. Bend one knee and bring it to your chest.
4. Return your foot to the floor.
5. Move nice and slowly.
6. Repeat with your other knee.

Ski Jump



1. Tuck your arms into your chest.
2. Crouch forward.
3. Pretend there is a line on the floor.
4. Jump to the side over this line.
5. Jump back to the other side.