

A black and white photograph of a man running on a treadmill in a gym. The man is in profile, facing left, wearing a dark t-shirt and shorts. He has a tattoo on his left arm. The treadmill is a Life Fitness model. In the background, there are other gym equipment, a large window with the word 'STUDIO' visible, and a sign that says 'BASKET'. The overall scene is a modern, well-lit gym environment.

Cardio Machine Guide

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INTRODUCTION

The purpose of this introduction is to give you a clear understanding of cardiovascular exercise and how it supports your overall fitness. The following questions explain what cardiovascular exercise is, why it matters for health and performance, and how to begin using cardio machines with confidence.

What is Cardiovascular Exercise?

Cardiovascular exercise, known as cardio or aerobic exercise, is any physical activity that elevates a person's heart rate and breathing for an extended period.

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Why is Cardiovascular Exercise Important?

Incorporating regular cardiovascular exercise into your routine provides a wide range of benefits that support both physical and mental health. It strengthens the heart and lungs, improving how efficiently your body delivers oxygen and nutrients. Consistent cardio helps manage body fat, reduces the risk of chronic diseases such as heart disease and diabetes, and enhances overall endurance and stamina. Beyond physical health, it also boosts energy, improves mood, and reduces stress.

How Do You Start Cardiovascular Exercise?

The best way to ease into cardiovascular exercise is by using cardio machines. Cardio machines allow users to control key elements such as speed, resistance, and intensity in a safe, controlled environment. They also help guide movement and track progress, making the process simple and less intimidating compared to outdoor cardio, which can often feel more intimidating.



CARDIO MACHINES

Cardio machines are tools designed to improve your cardiovascular health, endurance, and overall fitness through controlled, measurable movement. Each machine offers unique benefits and intensity levels that can be adjusted to match your training goals. Understanding how each one works helps you choose the most effective option for your specific program.

Cardio Machine Options

The following is a list of the most common cardio machines found in gyms:

- Elliptical
- Treadmill
- Stairmaster
- Stationary Bike
- Rowing Machine

Definitions

Every cardio machine has unique features and functions. The following definitions explain what each machine is and how it operates so you can better understand the options available.

1. **Elliptical:** A machine with adjustable speed, incline and stride length settings that allows users to walk, run or stair climb; along with moving handlebars that are synchronized with the user's leg movements.
2. **Treadmill:** A machine with adjustable speed and incline settings that allows users to walk, jog, or run in place on a moving belt.
3. **Stairmaster:** A machine with adjustable speed and resistance settings that allows users to simulate the action of climbing stairs.
4. **Stationary Bike:** A machine that allows users to simulate the action of riding a bike.
5. **Rowing Machine:** A machine that allows users to simulate the action of watercraft rowing.

The definitions above are provided by Picaso Services LLC



Applications

Each cardio machine can serve a different purpose depending on your fitness goals, fitness level, or physical needs. Some machines are better for building endurance, others for burning calories efficiently, and some provide a lower-impact option that reduces stress on the joints. The following section breaks down how each machine is best applied, so you know which one fits your goals the most.

1. **Elliptical:** The elliptical is best for improving endurance and burning calories with low-impact motion. It is ideal for individuals who want to reduce stress on their joints or prefer a smoother alternative to running.
2. **Treadmill:** The treadmill is best for calorie burning, fat loss, and simulating outdoor running or walking. It is ideal for individuals who want a versatile option that can be adjusted for beginners through advanced users.
3. **Stairmaster:** The Stairmaster is best for building lower-body endurance and strength while providing a high-intensity workout. It is ideal for individuals who want to challenge their legs or take their calorie burning to the next level.
4. **Stationary Bike:** The stationary bike is best for targeting the lower body and providing a seated, low-impact cardio option. It is ideal for individuals who want to perform interval training, steady-state cardio, or recover from lower-body injuries.
5. **Rowing Machine:** The rowing machine is best for full-body conditioning since it engages both the upper and lower body. It is ideal for individuals who want to build endurance, improve posture, and burn calories with a low-impact workout.



Recommendations

Each program has a recommended cardio machine that aligns best with its primary goal. These recommendations are designed to help you perform optimally, recover efficiently, and stay consistent with your training approach.

Recommended Machines by Program

General Fitness 1: Treadmill

General Fitness 2: Elliptical

Fat Loss 1: Elliptical

Fat Loss 2: Stairmaster

Strength Training 1: Treadmill

Strength Training 2: Stationary Bike

Muscular Endurance 1: Stationary Bike

Muscular Endurance 2: Rowing Machine

Bodybuilding 1: Treadmill (Incline)

Bodybuilding 2: Stairmaster



CARDIO TIMING

Cardio timing explains when to perform cardio in relation to your resistance training sessions, whether before lifting, after lifting, in separate sessions, or on rest days, so you can understand how each option affects performance, recovery, and overall results.

Before Resistance Training

Cardio before lifting should only be done if it's a short, light session used as a warm-up. Longer or more intense sessions at this time can drain energy, reduce strength, and even increase the risk of injury. Since you have the most energy at the start of your workout, it's best not to spend it on cardio.

After Resistance Training

Cardio after lifting is generally the best approach. By saving it for later, you make sure your resistance training isn't compromised. If your energy is lower by the time you get to cardio, you can still complete it, whereas doing it first would directly reduce your strength and performance with the weights.

Separate Cardio Sessions

Splitting cardio and resistance training into separate sessions isn't required or necessarily recommended. However, it can be useful if your schedule makes it difficult to fit everything into one workout. In that case, breaking it up can be a practical solution.

Rest Days

Cardio on rest days is generally not recommended, as rest days are meant for your body to recover. The only reason to include it would be if you missed a session earlier in the week, but even then, it's not necessary to make up. Rest days should stay focused on rest and recovery—cardio should only happen if it's light, non-intense, or simply for fun, not as a structured workout.



CARDIO DURATION

Cardio duration should be adjusted based on your individual goals, recovery needs, and progress. Increasing, maintaining, decreasing, or stopping cardio at certain times ensures you get the benefits of cardiovascular exercise without compromising your overall results.

Increasing Cardio

You should increase your cardio routine when you want to:

- Lose weight and/or fat
- Improve daily activity levels
- Improve athletic performance
- Improve cardiovascular health
- Break through a plateau

How?

1. **Lose Weight and/or Fat** = Increase intensity and/or duration
2. **Improve Daily Activity Levels** = Increase duration
3. **Improve Athletic Performance** = Increase intensity and/or duration
4. **Improve Cardiovascular Health** = Increase duration
5. **Break Through a Plateau** = Add short, gradual increases in either intensity or time

Notes

1. **Lose Weight and/or Fat:** Add small increments to avoid burnout while supporting your calorie deficit.
2. **Improve Daily Activity Levels:** Extend sessions moderately to build stamina and keep it sustainable.
3. **Improve Athletic Performance:** Prioritize intensity through intervals, resistance, or speed work for performance gains, not just longer sessions.
4. **Improve Cardiovascular Health:** Aim for longer steady-state sessions that strengthen your heart and lungs—consistency is more important than extreme effort.
5. **Break Through a Plateau:** Small adjustments are enough to push through plateaus; avoid sudden or excessive jumps.



Maintaining Cardio

You should maintain your current cardio routine when you want to:

- Maintain Current Endurance or Stamina
- Continue Steady Progress Without Burnout
- Avoid Interfering with Strength or Muscle Growth

How?

- **Maintain Current Endurance or Stamina** = Keep your cardio frequency, duration and intensity the same to sustain your current conditioning level.
- **Continue Steady Progress Without Burnout** = Stick to your established cardio schedule and avoid increasing volume too soon.
- **Avoid Interfering with Strength or Muscle Growth** = Do not increase or decrease your current cardio sessions—maintain your existing routine to support both strength and muscle development.

Notes

- **Maintain Current Endurance or Stamina:** Consistency helps your cardiovascular system remain efficient without placing unnecessary stress on your recovery.
- **Continue Steady Progress Without Burnout:** Gradual, steady progress prevents fatigue and helps your body adapt over time for long-term sustainability.
- **Avoid Interfering with Strength or Muscle Growth:** Performing too much cardio can interfere with muscle recovery and limit growth by using energy your body needs to repair and build new muscle tissue.



Decreasing Cardio

You should decrease your cardio routine when you want to:

- Improve Recovery
- Prioritize Muscle Growth or Strength Gains
- Preventing Overtraining or Joint Stress
- Adjust During a Bulking or Maintenance Phase

How?

- **Support Fat Loss or Maintenance** = Stay with your current intensity and duration.
- **Maintain Current Endurance or Stamina** = Stay with your current intensity and duration.
- **Continue Steady Progress Without Burnout** = Stay with your current intensity and duration.
- **Avoid Interfering with Strength or Muscle Growth** = Keep cardio sessions balanced with your lifting routine.

Notes

- **Support Fat Loss or Maintenance:** If your energy balance is working, there's no need to adjust.
- **Maintain Current Endurance or Stamina:** Holding steady preserves your endurance without risking overtraining.
- **Continue Steady Progress Without Burnout:** If you're making progress, consistency is more effective than constant change.
- **Avoid Interfering with Strength or Muscle Growth:** Too much cardio can impact recovery, so maintaining your current level supports both goals.



Stopping Cardio

You should stop your cardio routine when you want to:

- Recover From an Injury
- Recover From an Illness
- Take a Deload/Reset Week
- Focus on Another Training Priority
- Reset After Overtraining or Extreme Fatigue

How?

- **Recover From an Injury** = Pause cardio until completely until cleared to resume activity.
- **Recover From an Illness** = Take full rest until your body feels well enough to return.
- **Take a Deload/Reset Week** = Step away from cardio during structured rest weeks.
- **Focus on Another Training Priority** = Remove structured cardio and shift effort into your current goal (e.g., powerlifting prep).
- **Reset After Overtraining or Extreme Fatigue** = Take a break from formal cardio while prioritizing rest and nutrition.

Notes

- **Recover From an Injury:** Forcing cardio through injury can worsen the problem.
- **Recover From an Illness:** Cardio during illness delays healing—recovery comes first.
- **Take a Deload/Reset Week:** A full break can refresh your body and mind for the next training phase.
- **Focus on Another Training Priority:** Even when pausing, include light daily activity to maintain basic fitness.
- **Reset After Overtraining or Extreme Fatigue:** A full reset helps restore energy levels and motivation.



CARDIO INTENSITIES

Cardio intensity refers to how hard your body is working during cardio. Different intensity levels affect your calorie burn, endurance, recovery, and overall results, which is why it's important to understand how each level feels and when to use it.

Cardiovascular Exercise Intensity Table

Intensity	Definition	Signs	Examples
Very Low	<30% of max heart rate	Breathing: Casual Conversation: Full	Casual walk, stretching, mobility
Low	30–50% of max heart rate	Breathing: Steady Conversation: Can Talk in Full Sentences	Brisk walk, light cycling
Moderate	50–70% of max heart rate	Breathing: Heavy Conversation: Short Phrases	Jogging, elliptical, HIIT rounds steady cycling
High	70–90% of heart rate	Breathing: Rapid Conversation: Only Single Words	Running, stair sprints,
Max	90–100% of max heart rate	Breathing: Very Hard Conversation: Not Possible	All-out sprint, max-effort row

Application

Use this chart to gauge your effort during cardio. Your program may suggest a specific intensity, but you can also use the breathing and talking cues to make sure you're training at the right level. Lower intensities are best for recovery and endurance building, moderate intensities are effective for fat loss and general fitness, and higher intensities are used for performance improvements or shorter, more challenging sessions.



HIIT VS. STEADY-STATE CARDIO

Cardio can be performed in two main styles, and each one offers its own purpose and benefits. This section explains the differences between high intensity interval training and steady state cardio so you can understand how they work and when to use them. With this information, you can choose the style that supports your goals and apply it effectively to your workout routine.

HIIT & Steady-State Cardio Comparison Table

HIIT (High-Intensity Interval Training)	Steady-State Cardio
Alternates short bursts of very high intensity with rest or low intensity. Performed at a consistent pace and moderate intensity.	Performed at a consistent pace and moderate intensity.
Burns a high number of calories in less time (time-efficient).	Burns calories at a steady rate over a longer duration.
Improves speed, power, and cardiovascular capacity.	Builds endurance and aerobic base.
More demanding on the body and requires longer recovery.	Lower impact and easier to recover from.
Best performed a few times per week.	Can be performed more frequently.

Application

Your program may suggest HIIT, steady-state, or a mix of both depending on your goals. HIIT is best when you're short on time or looking to challenge your cardiovascular system, while steady-state works well for fat loss, building endurance, and active recovery. Both methods can be rotated into your routine for balanced results.



CONCLUSION

This conclusion brings together the key points of the guide and offers final guidance to help you apply everything effectively. The following sections summarize essential reminders, address common questions, and provide a closing note to support long-term consistency and success with cardiovascular training on machines.

Reminders

1. Keep your posture tall and relaxed to avoid unnecessary strain on your neck and lower back.
2. Maintain a steady breathing rhythm throughout the session to control fatigue.
3. Increase intensity slowly over time to let your body adapt safely.
4. Daily cardio supports general health by improving heart function, endurance, and overall energy levels.
5. Schedule your main cardio session after your workout so your strength training is not affected by early fatigue.
6. Drink water before, during and after your session to stay hydrated.
7. Stop immediately if you feel dizziness, chest pain, or sharp discomfort.
8. If you miss a cardio session, you do not need to make up for it the next day.
9. Hold the machine handles only when needed for balance so your muscles do the work instead of relying on support.
10. You are not required to do cardio only on machines, because any activity that elevates your heart can be counted as cardio.



Frequently Asked Questions (FAQs)

1. Q: *How often should I do cardio?*

How often you should do cardio depends on your goals and fitness level, but it's generally recommended to include cardio every time you resistance train. In general, aim for around 150 minutes of moderate-intensity cardio or 75 minutes of high-intensity cardio per week to support overall cardiovascular health and performance.

2. Q: *Do I always have to use a cardio machine for cardiovascular exercise?*

No. Cardio can be done anywhere without machines. Activities such as running outside, swimming, jump rope, hiking, or even brisk walking all improve cardiovascular health. Machines are just a controlled and convenient option.

3. Q: *How long should I do cardio for?*

A cardio session should last at least 10 minutes. The exact duration depends on your goals, lifestyle, and schedule. If your goal is general fitness or overall health, the main focus is just staying active. If your goal is fat loss, you'll want to gradually increase your cardio duration over time. If you're training for strength or muscle gain, keep cardio minimal to avoid interfering with recovery and muscle growth.

4. Q: *Can I switch between cardio machines, or do I have to use the same machine every time?*

You can absolutely switch between machines. Using different machines like the treadmill, Stairmaster, or bike helps prevent boredom, reduces overuse injuries, and challenges your body in different ways. Choose machines based on comfort, joint health, and personal preference.

5. Q: *What happens if I forget or can't make a cardio session?*

Missing a session occasionally won't hurt your progress. Simply return to your normal schedule at your next opportunity. Consistency over time is what matters most, not perfection.

6. Q: *Are the calorie counters accurate on cardio machines?*

Calorie counters on cardio machines are usually not accurate. One reason is that many people do not enter their weight or do not enter it correctly, which changes the estimate. Even when the correct weight is entered, the machines still tend to inflate the number because they rely on general formulas that do not reflect individual differences. Use the calorie number as a rough estimate instead of an exact measurement.

7. Q: *Will cardio make me lose muscle or strength?*

Moderate cardio will not cause muscle loss if you're eating enough protein and calories to support recovery. Excessive cardio, combined with



low calorie intake, can increase the risk of muscle loss. Balance your training by prioritizing resistance workouts and nutrition.

8. Q: Do I need to use all the adjustable options on the cardio machine?

You only need to adjust the resistance and speed settings, depending on the machine you are using. These settings determine the actual intensity of your session. The other adjustable options, such as built-in programs, heart rate displays, and additional tracking features, are helpful tools that can enhance your workout but are not required for an effective session.

9. Q: Is it normal for my legs to feel fatigued during longer sessions?

Mild leg fatigue is normal during longer cardio sessions because your muscles are working continuously. The feeling should stay manageable and should not become sharp or painful. If the fatigue becomes too intense, lower the speed or resistance and allow your legs to recover before increasing the intensity again.

10. Q: Is cardio necessary for fat loss?

Cardio helps increase calorie expenditure, which supports fat loss, but it's not required. Fat loss comes from maintaining a calorie deficit. Strength training and proper nutrition are just as, if not more, important for long-term results.

11. Q: Can I do cardio more than once a day?

You can, but it depends on your recovery, training volume, and nutrition. Splitting sessions (for example, a morning walk and an evening bike ride) can be effective if managed carefully. However, doing too much can lead to fatigue or interfere with muscle recovery.

12. Q: Which machine burns the most calories?

The Stairmaster generally burns the most calories among common cardio machines. However, the total number of calories you burn still depends on the individual. People have different preferences and may perform better on certain machines than others. Because of this, the machine that burns the most calories for you is the one that allows you to work consistently and with proper effort.

13. Q: How do I know if I'm doing too much cardio?

You may be overdoing it if you experience constant fatigue, sore joints, loss of strength, poor sleep, or a drop in motivation. If your progress stalls or you start losing muscle, scale back. Proper rest, balanced nutrition, and listening to your body are key signs you're managing cardio well.

14. Q: How do I know whether to choose steady-state cardio or HIIT cardio?



Choose based on your goals and recovery ability. Steady-state cardio is better for endurance, active recovery, and fat loss without much fatigue. HIIT is more time-efficient and helps improve athletic performance but can be more taxing. Beginners often start with steady-state and progress into HIIT once conditioned.

15. *What should I do if I feel discomfort or pain during cardio?*

If you feel discomfort or pain during cardio, slow down or stop the session immediately. Pain often signals a form issue, excessive intensity, or an underlying problem that needs attention. Allow the area to rest, check your form and machine setup, and resume only when the movement feels comfortable and controlled. If pain continues, seek guidance before continuing.

Final Note

Cardio is a versatile tool that supports your fitness goals, but it works best when balanced with resistance training, proper nutrition, and recovery. Follow the guidelines in this program, stay consistent, and trust the process. Results will come.