

Pre-workout complex: what is it and how does it work?

Have you ever found yourself dragging your feet to the gym because you just don't have the energy for a workout? Or wanted to take your performance to a new level? If that sounds like you, consider a pre-workout supplement. These supplements can be helpful for those who need a bit more energy or those wanting to push themselves to the next level. Whether you've heard of pre-workout or not, we've got all the scoop to help you decide if it's worth it.

What is a Pre-Workout supplement?

You may have seen people drink pre-workout supplements – usually a bright-colored liquid in someone's shaker. But what makes a pre-workout supplement?

There's a lot of variety in these supplements, so defining a pre-workout supplement is quite challenging. Usually, it has two types of actives. One type is aimed at helping you feel more energized for the workout. The second type may improve performance, whether through supporting effort at high intensities or a bigger pump.

Most pre-workout supplements will come in powders, from which you can make pre-workout drinks. Alternatively, already mixed pre-workout drinks and shots exist and may be found in shops.

Which one to go for will ultimately be up to you, as some people may enjoy the convenience of carrying around a small pre-workout shot. Others may want more control over their portions of pre-workout or may wish to combine them with other supplements.

Pre-workout drinks are not a replacement for meals, though. This means you should still pay proper attention to fueling before a workout. Make sure you have a meal before working out containing plenty of carbohydrates and protein. Alternatively, have a high-carb and moderate protein snack about an hour before you work out. Maybe even combine it with a cup of coffee. This will help you get your energy levels up before a training session and help you stay fueled during it.

If you're looking for more tips on what to eat before a workout, [check out our post](#).

What does Pre-Workout Do?

Why use a pre-workout supplement, you may ask. Pre-workout supplements contain ingredients that are known to enhance sports performance. Together, they are hypothesized to have [a synergistic effect](#), boosting each other's effects.

A review that investigated the effects of pre-workout supplements on performance found the following [benefits of pre-workout](#):

- It may support your muscle force production during and after exercise. After a few sets, your muscles become tired and are able to exert less force. Pre-workout can help fight against that effect during and after a tiring set.

- Better muscular endurance. This means that those who took pre-workout were able to do more sets or more volume of exercise. This applies to strength exercises like squats and bench presses, as well as high-intensity bodyweight exercises.
- It may improve certain types of power production. It appears that they can help retain upper body power after strenuous training. It may support anaerobic sprint performance.
- It may be able to support endurance exercise. A limited number of studies have been performed so far, but it appears to increase time to exhaustion on the treadmill.

Therefore, pre-workout mixes can be a valuable addition to athletes' supplement arsenal.

Ingredients in Pre-Workout Complexes

There are a few ingredients that make up an excellent pre-workout supplement. Usually, it's a combination of things that will give you energy, like caffeine and performance-boosting supplements. Some common ingredients in pre-workout include caffeine, beta-alanine, amino acids, creatine, and taurine.

Let's cover a few of these ingredients in detail.

-Caffeine

Caffeine, found in coffee, is one of the most [common supplements](#) athletes use. And it's effective, too. It can be beneficial for muscle endurance, allowing you to work out longer without feeling tired. It can support your speed and strength, which makes it a good addition for most athletes. It appears that it is most beneficial for those who do aerobic exercise, meaning things like running, cycling, swimming, and rowing.

Usually, when you use caffeine, you should use [around 3-6 mg of caffeine](#) per kilogram of body mass. Caffeine takes a while to get into the bloodstream, so it's a good idea to have caffeine or caffeine-containing pre-workout around 45-60 minutes before exercise.

You may find caffeine in things that aren't coffee. For example, some pre-workout energy supplements may use guarana. Guarana is a plant that contains caffeine and other stimulants in a higher [proportion than coffee does](#). [DE] Maxler Black Kick capitalizes on the additional stimulants in guarana, delivering a tremendous energy-boosting pre-workout drink.

-Beta-alanine

Beta-alanine is another supplement that many may have heard of. It [is an amino acid](#) that is not used by the body to make protein. Instead, when our liver produces it, or we get it from food, it makes up carnosine. Carnosine is a protein that helps regulate pH in our muscles and helps contract them, which translates into better performance. Supplementing with beta-alanine is a great way to increase carnosine stores in muscle.

Beta-alanine supplementation can be beneficial for increasing power output. This can allow you to lift greater loads. Its ability [to buffer muscle acidity](#) allows our muscles to keep working longer, delaying fatigue. It is usually effective for high-intensity movements that last around 60-300 seconds.

Beta-alanine powder is often sold separately, [\[DE\] such as Maxler Beta-Alanine](#), so you can add this amino acid to your pre-workout if it doesn't already contain it.

-Amino Acid Complex

Some pre-workouts may contain an amino acid complex. Which amino acids they contain will depend on the brand. Maxler's top-notch pre-workout NRG Max contains a blend of BCAAs. The benefit of using amino acids like [BCAAs in a pre-workout](#) is that they help preserve muscle mass and may be used as fuel during high-intensity exercise.

-Creatine

Creatine is a classic amongst those who know even a little bit about sports nutrition. Its role is to help our muscles re-generate ATP, which is the energy currency of our cells. ATP powers our movement. You can find out how exactly this process works in our [post about creatine](#). Alternatively, check out our post for those who want to learn more about how creatine can help you gain muscle mass.

Creatine is excellent for [high-intensity exercises](#), including sprints. It can help you do more of the maximum effort sets. It supports the growth of muscle mass. It helps with muscle strength increases. It can even benefit recovery.

-Taurine

Taurine is [another amino](#) acid, but it's not an amino acid that is used to make protein. You may have heard of taurine from energy drinks, as some contain it. Taurine can help the body use fat for fuel, which can benefit those who do endurance exercise. It may be beneficial for recovery, as it is able to lower inflammation in muscle tissue.

In addition to these ingredients, some pre-workouts may include vitamins and minerals known to support performance.

How to Take Pre-Workout Complexes

Taking a pre-workout supplement is relatively straightforward. They typically come with instructions on dosages and how to use them. Follow the instructions on your pre-workout for best results.

If you've not used a pre-workout before, starting slow may be a good idea. Add less of the pre-workout powder than is specified on the packaging. See how your body responds to it. Some people may find that they feel a little tingly, especially if their supplement has beta-alanine in it. However, that's not usually cause for alarm.

Alternatively, some people may experience stomach discomfort if starting off with high doses of pre-workout. If that's the case, you can build up a tolerance by using less for a while.

Most of the ingredients in a pre-workout mix will require time to reach the bloodstream and kick in. Therefore, pre-workout supplements should be taken anywhere between 60 and 30 minutes before your workout.

If you're finding that you can't quite find a pre-workout supplement with everything you want, don't fret. With a little bit of creativity and research, you can simply make your own mix.

Pre-workout supplements can be a great way to help you power through a challenging workout. They can also make you feel energized before a training session. However, pre-workout complexes are not a substitute for proper nutrition and a healthy lifestyle. Instead, use them as an additional help in reaching your goals.

The screenshot shows a Google Docs interface with a document titled "Preworkout.edited.docx". The document content includes a section header "Pre-workout complex: what is it and how does it work?" followed by a paragraph: "Have you ever found yourself dragging your feet to the gym because you just don't have the energy for a workout? Or wanted to take your performance to a new level? If that sounds like you, consider a pre-workout supplement. These supplements can be helpful for those who need a bit more energy or those wanting to push themselves to the next level. Whether you've heard of pre-workout or not, we've got all the scoop to help you decide if it's worth it." A Grammarly plagiarism checker overlay is visible on the right side of the document, showing three results: "1% of this text matches Pre...", "1% of this text matches When ...", and "1% of this text matches UC...". The Grammarly interface also shows a "3% Plagiarism" summary and an "APA" citation style dropdown.