# 5 Tips for Better Centrifugation

CORNING

Centrifugation is a method of separating particles commonly used in laboratories. Here are 5 tips to help you get the best results during your work.


## Select the Appropriate Rotor

Select the rotor that will be compatible with your centrifuge and tubes/bottles you're going to use. Depending on the application, you can choose between fixed angle and swing-out rotors. There are also different rotors for different types of the vessels (e.g., vertical rotors or rotors for microplates or for PCR strips).

## Use the Appropriate Tube

Using the right size tube for the correct centrifuge and the right rotor is imperative for the success of your centrifugation, and knowing which one you need is very important. Since most benchtop centrifuges use 1.5 mL tubes, you wouldn't want to use a 0.5 mL tube, unless you have an adapter equipped. If you don't take the time to know what type of centrifuge you will be using, and what is the appropriate tube size, the tube might break and your sample could be ruined.

Depending on your solution type you also have to determine what material centrifuge tube you need to use.



## Balance the Centrifuge

Balancing the centrifuge is imperative not only for having a good result after centrifugation but also for the life of the centrifuge.

If you are centrifuging different tubes but with a similar solution (same density), then the volumes of the samples should be the same or samples with the similar volume should be paired together and put in opposite sides of the rotor. If the solution does not have the same density, then you should weigh the tubes and reach the same weight among the samples to be centrifuged. If you only have one sample, there is an easy solution. Take the same size tube, fill it with the same amount (or until the same weight) as your sample but with water.

## Determine the Appropriate Speed

The centrifuge rotor speed is often described as RCF (Relative Centrifugal Force). When deciding what speed you're going to use, you should always take into consideration both application and the test tubes you are going to use. If the speed is too high the tubes may break.



## Secure the Rotor Lid

The last step before you start to operate your centrifuge is to check the rotor lid. Once the lid is secured you can close the centrifuge (the lid may also have a lock mechanism in place).

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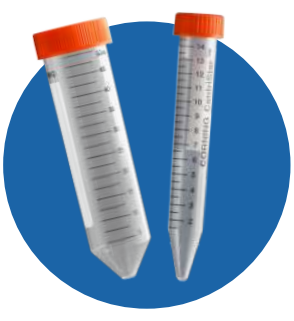
Benchtop centrifuges



Centrifuge tubes

Microcentrifuge tubes