

## How to Fix Blurry Photos

One of the most common problems that photographers face is getting photos that are tack sharp. Unless you're blurring on purpose (like for an abstract photo), you'll need to figure out how to rectify the problem.

Of course, you have to understand what causes blurry photos in the first place if you're going to find a solution. Let's explore a few reasons why your photos might be blurry and what you can do to fix them.

### Slow Shutter Speed



Camera shake is probably the number one culprit of blurry photos. Essentially, camera shake occurs when you're hand holding the camera, and due to a shutter speed that's too slow, the images you take are blurry all over, like the one above. To fix camera shake, you need to keep this in mind: the reciprocal rule.

The reciprocal rule states that when you're hand holding your camera that your shutter speed needs to be faster than the focal length of your lens. So, if you're shooting with a 50 mm lens on a full frame camera, your shutter speed needs to be at least 1/50 second. Likewise, if you're shooting with a 200 mm lens on a full frame camera, your shutter speed needs to be at least 1/200 second.

Where it gets tricky is if you use a crop sensor camera because the crop factor will come into play. For example, if you shoot with a Canon camera, the crop factor is 1.6x, so you have to multiply the focal length by 1.6. That means that the same 50 mm lens discussed above requires a minimum shutter speed of 1/80<sup>th</sup> second and the 200 mm lens requires a shutter speed of 1/320 second or more.

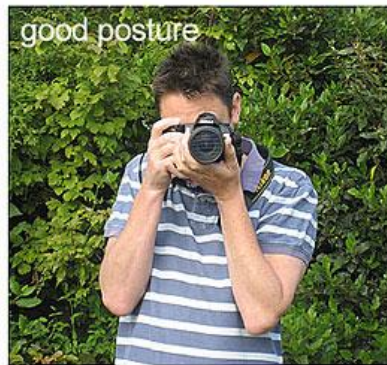
The easiest way to adhere to the reciprocal rule is to shoot in shutter priority mode, that way you can select the needed shutter speed and the camera will select an aperture to match for a good exposure.

**Incorrect Camera Holding Technique**



Another common cause of camera shake is a simple one... Think of how you hold your smartphone when you take a photo. You extend your arms, hold the phone in front of your face, and take the shot.

And while that might work with your phone, that type of camera holding technique won't do you any favours when shooting with your DSLR or mirrorless camera. Instead, you need to approach holding your camera in a way that maximizes its stability such that you minimize the possibility of a blurry photo.



For example, tuck your elbows into your chest, that way your arms have something to rest on, as seen above. Then, bring your camera to your eye, pressing the eye cup firmly against your face. This creates a third point of contact to help stabilize the camera. Stand with your feet shoulder-width apart, preferably with one foot nearer your subject and pointing towards it and the other foot further back and pointing perpendicular to the subject. This will give your entire body – and thus, your camera – a stable base from which to shoot.

## Motion Blur

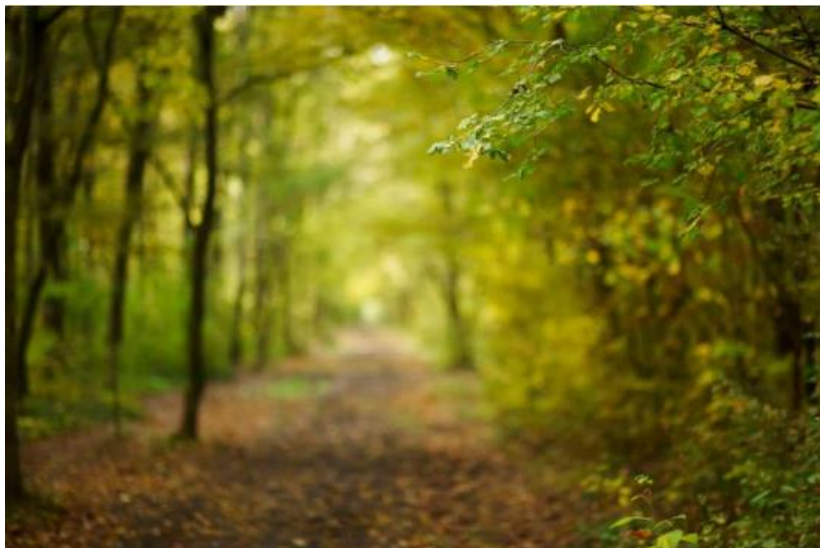


Sometimes, blurry photos aren't the result of camera shake but are instead a result of your subject moving around. In this situation, motion blur is caused by using a shutter speed that once again is too slow. You'll see this in photos in which elements that are still are nice and sharp, but your subject is blurry.

But because some elements are sharp, you know that the shutter speed issue isn't causing camera shake, but is instead the result of the shutter speed not being fast enough to freeze the motion of your subject. To correct this issue, simply shoot in shutter priority mode and select a shutter speed that's fast enough to freeze movement.

If you're photographing a person walking, 1/100 second will probably suffice. If they're playing sports, 1/500 second is more appropriate. If you're photographing wildlife, you might need to go to 1/1000 or 1/2000 second to freeze movement. Naturally, the speed of the subject will determine the shutter speed you need to avoid motion blur, so do some experimentation in shutter priority mode to find the ideal shutter speed for the task at hand.

## Shallow Depth of Field



If the blurriness in your photos is in the background, but your subject is sharp, the shutter speed isn't the issue. Instead, the aperture you're using could be the issue.

For portraiture, having a blurry background is typically preferred because a blurry background helps separate the subject and draw more attention to him or her. But for images in which you want everything in focus – like most landscapes – having a blurry background isn't usually what you want.

To fix this problem, you just need to change the aperture to get a larger depth of field. In a nutshell, depth of field refers to the area in an image that's in sharp focus, and aperture is one factor that influences it. The larger the aperture, the smaller the depth of field, so if you find that the background is blurry, close down the aperture.

For example, if at f/4 the background is blurry, try f/8 or f/11. If it's still blurry, close the aperture more, to f/16 or maybe even f/22. Of course, you will have to investigate shutter speeds or ISO values to compensate for less light being allowed through the lens when shutting down the aperture.

### **Wrapping It Up**

There are a lot of issues that can crop up when you take a photo that causes it to be blurry.

Fortunately, many of the fixes for blurry photos are simple and straightforward – it's just a matter of knowing what to do and when. Give the techniques outlined above a try and see how they can help you create images that are tack sharp.