

# Kingston Photographic Club

## Camera Shake

One of the common problems that many new digital (and film) photographers have is 'camera shake' where images seem blurry - usually because the camera was not held still enough while the shutter was depressed. This is especially common in shots taken in low light situations where the shutter is open for longer periods of time..

Adding to camera shake is a poor technique that is increasingly common with digital camera users of holding the camera at arms length away from them as they take shots - often with one hand. While this might be a good way to frame your shot when using the LCD screen on the back of a compact 'point & shoot' camera, the further away from your body you hold the camera the more chance you have of swaying or shaking as you take your shot. If you've got a viewfinder, use it. Of course, then you'll see press photographers waving their cameras all over the place at arm's length..... but these are very desperate people!

You will probably have heard the recommendation to use a shutter speed where the fractions of a second match up with the focal length of the lens... e.g., for a 200mm lens, don't go slower than 1/200th, with a 50mm lens, don't go slower than 1/50th. These are fine guidelines but two extra things come into play with digital cameras....

- Most DSLRs over the last five or six years have 'Vibration Reduction' (or 'Image Stability', or 'Shake Reduction') either built into the lens or the camera body. That usually allows you to shoot up to two shutter speeds slower than you might otherwise be able to do.
- The sensor of the majority of cameras is smaller than 35mm film - typically it's an APS-C sensor and there's what's known as a 'crop factor', usually around 1.5x, to apply to the given length of a lens - so a 50mm lens acts as a 75mm lens would on a film SLR, a 28mm focal length becomes 42mm.

So those guidelines have to be modified a little.... but in fact cancel each other out most of the time! That said, without using VR, SR etc., the minimum shutter speeds recommended for shooting hand-held using an SLR with an APS-C sensor (that's most of us) are:

Focal Length	Shutter Speed
10mm	1/20th
18mm	1/30th
28mm	1/50th
55mm	1/100th
100mm	1/160th
250mm	1/400th
400mm	1/640th

Always use any 'Vibration Reduction' or 'anti-shake' feature of your camera - these are electronic methods to counteract camera shake and vibration by introducing vibration of their own (either into the lens or the sensor). VR may give you back the extra stop or so of shutter time and may cancel out the requirement for the above settings, but they're worth bearing in mind. Tripods are the best way to stop camera shake - but don't skimp on the cost of these - a cheap one is usually not very stable at all and if you rely too much on them they can be worse than hand-holding the camera. A good tripod has three sturdy legs that keep things very still but remember - when using a tripod, switch off that anti-shake or 'vibration reduction' device you have - they're designed to 'counteract' camera shake but if there's nothing to counteract then they just introduce their own vibration. If you don't have a tripod then another simple way to enhance the stability of the camera is to rest your camera on something firm and steady, (a beanbag is useful) or use a monopod or hold onto it with two hands.

Exactly how you should grip your camera will depend upon what type of digital camera you are using and varies from person to person depending upon preference. There is no real right or wrong way to do it but here's the technique that I generally use:

- **Use your right hand to grip the right hand end of the camera.** Your forefinger should sit lightly above the shutter release, your other three fingers curling around the front of the camera. Your right thumb grips onto the back of the camera. Most cameras these days have some sort of grip and even impressions for where fingers should go so this should feel natural. Use a strong grip with your right hand but don't grip it so tightly that you end up shaking the camera. And, just like rifle shooting, squeeze the shutter don't jab at it).
- **The positioning of your left hand** will depend upon your camera but in general it should support the weight of the camera and will either sit underneath the camera or under/around a lens if you have a DSLR.
- **If you're shooting using the view finder** to line up your shot you'll have the camera nice and close into your body which will add extra stability but if you're using the LCD make sure you don't hold your camera too far away from you. Tuck your elbows into your sides and teach yourself to stand still. It's worth adding that controlled breathing always helps as well - I find that it's good to press the shutter just as I've exhaled.
- **Add extra stability by leaning against an object** like a wall or a tree or by sitting or kneeling down. If you have to stand and don't have anything to lean on, for extra support put feet shoulder width apart to give yourself a steady stance. The more still you can keep your body, the more still the camera will be.

Gripping a camera in this way will allow you the flexibility of being able to line up shots quickly and will also help you to hold still for the crucial moment of your shutter being open.

Of course everybody has their own little techniques that they are more comfortable with and ultimately you need to find what works best for you - but in the early days of familiarizing yourself with your new digital camera it's worth considering your technique.