

Shutterbug

photography training

Lifestyle Family Photography: Class 1

Who is Your Subject?

Every person has unique and interesting qualities, including relationships with others, personality quirks and mannerisms, and of course, physical appearances... but how do you capture these elements in a photograph that accurately depicts your subject?

Even if you know the person you're photographing, you may not be entirely tuned into them (even your own family.) ***Clear your mind of any distracting thoughts*** and make a genuine effort to connect with them.

People are usually uncomfortable being photographed, and if you help them feel at ease, they will usually respond favorably while in front of your lens. Just keep it loose and free-flowing and your subject's real personality will soon begin to emerge.

Capturing Special Moments

Unlike video, a photograph captures a single moment in time, but **how do you define a 'special moment?'** How is it recognized, and how do you influence it to appear so you can photograph it?

Being aware and receptive: special moments happen on their own all the time without any help from you. Your job is to **let these moments reveal themselves** instead of forcing them to happen, and this requires you to be aware and receptive to what's going on around you.

Being ready to take action: this is where knowing your camera and how to operate it comes into play. If you're too busy fussing around with your camera, the special moment you see will be gone before you can ready your camera to capture it.

Approaching Your Subjects

There are **two approaches of interaction** when you are taking photographs of people, and choosing the best approach depends on your intentions, style, and comfort level.

One is to photograph your subject(s) **without them being aware their photo is being taken** - paparazzi style if you like. This approach is common with lifestyle and reportage style photography.

The other is to **purposefully pose people to look a certain way**, which will likely result in unnatural-looking photos that lack any sort of personality. Think of the overly structured family portraits we all have had to endure at some point or another - not very interesting, right?

Our Wonderful Family

Taking photos of our own kids should be a breeze, right? We're with them most all the time and have a keen insight to their interests, personalities, and moods. And, they're more comfortable around us than with anyone else. What could go wrong?

However, this parental advantage has its drawbacks. We may know them better than anyone else, but they know us pretty darn well, too. And, when we start taking their photos, they know just what to do to make us want to throw our camera at them.

Do our kids act differently for us than when around others? Probably. Is it frustrating? Definitely. Is there anything we can do to make the process easier? Well, there's always hope...

Make It Fun

It's easy to become so obsessed with capturing the perfect shot of your kids that you forget to take part of the experience. While it's important to get a great photo of your family, don't become so consumed with getting the shot that you miss what's happening.

This 'do or die' approach to getting a great shot can be viewed as intrusive and uncomfortable by your kids, or anyone else who happens to be in front of our lens for that matter.

The reason your kids groan whenever they see the camera come out is because you have not made it a fun experience in the past. Instead, approach the next session with an intention of ***creating some fun instead of simply getting the shot*** and see how much further you get.

Tell a Story

We all strive to create a lasting image, but what makes a lasting photograph? What makes a photograph truly stand out? Is it merely a group of elements shot with skilled techniques? Not even close.

A lasting image is holistic, it sends a strong message when it tells a thought-provoking, emotional story. So how do you do that?

Talk to yourself - before you lift up your camera to shoot, ask yourself the following questions: What do you want to say? What emotions are you trying to capture? What is your ultimate message?

Get close - every face has the potential to tell a unique story and the power to reveal a person's past or expose their deepest emotions. In portraiture, getting closer allows for an intimate view of your subject.

Tell a Story

Stay candid - always allow room for spontaneity and the chance to capture surprising moments. By being unobtrusive, you can catch your family behaving more naturally, which will enable you to depict them in their truest light, good or bad.

Look for emotions- emotions are powerful, and capturing authentic emotions is the key to effective storytelling with your camera. Your family is full of emotions (aren't we all), so be on the lookout.

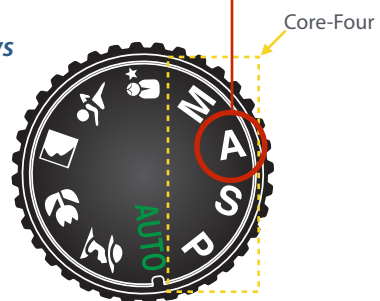
Take your time - the more time you spend capturing your family, the more opportunities you have to better tell their story, and the more opportunities you have to shoot. Keep in mind that the more you shoot, the more likely you are to capture something memorable.

Aperture Priority Mode

Among your camera's many exposure modes, there are four core modes that you want to use while ignoring the rest, and they are **Program**, **Aperture Priority**, **Shutter Priority**, and **Manual**.

Of these 'core-four' exposure modes, the one you will be using the most for portraits is **Aperture Priority**.

Aperture Priority is a **semi-automatic mode that allows you to control the aperture value** while the camera sorts out the shutter speed. This is the go-to exposure mode for many portrait photographers because it gives them the ability to **manage the depth of field** in their photos.



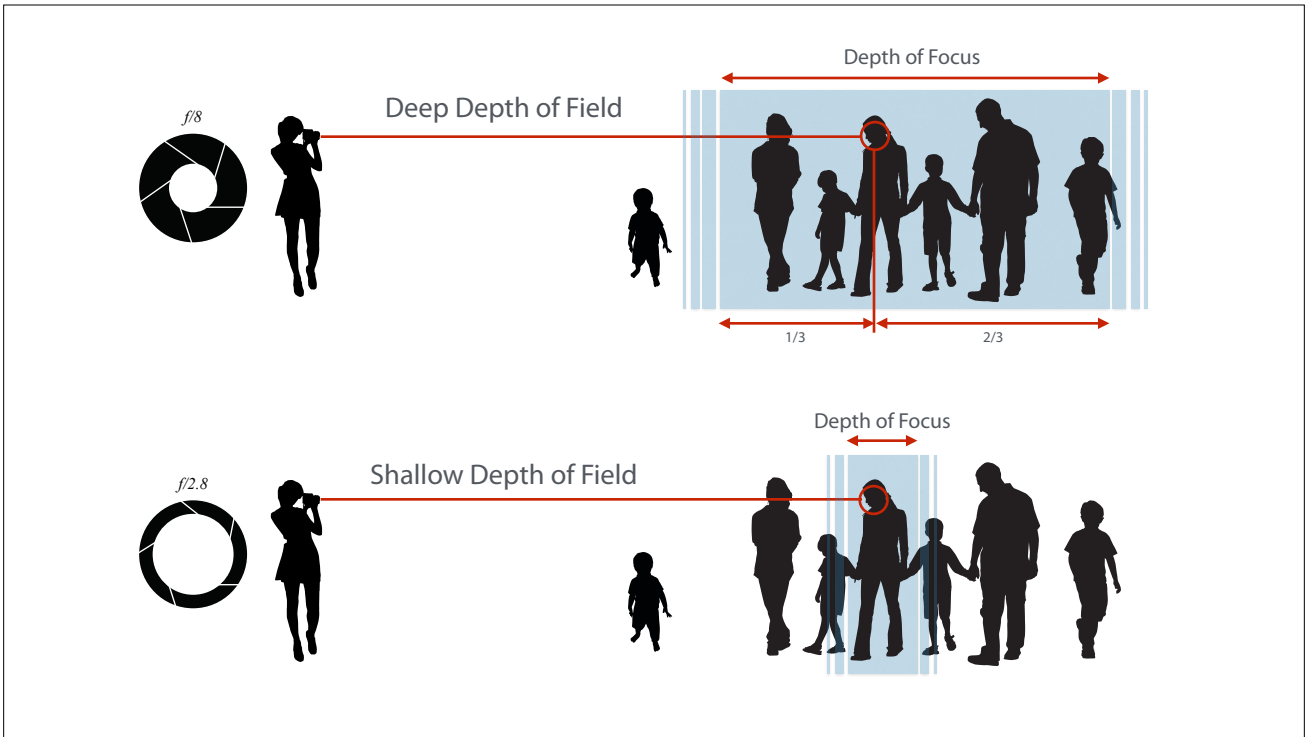
Depth of Field

Depth of field (DOF) is one of the most confusing concepts of photography. You know what it is and what it does, but often have a hard time understanding how it works and how to put it to use.

A big reason for this confusion is because it is an element that is constantly changing. Another reason is that **the relationship between the aperture value (f/stop) and iris opening can seem backwards**.

Knowing the **intention behind your photo** will go a long way in helping decide which aperture value to select. When your intention is taking portraits, you will likely be **shooting at your widest aperture value**, such as f/2.8 or f/3.5, to get a blurred background known as **shallow depth of field**.

Tip: too shallow of a depth of field can actually work against you by making it near impossible to get your subject in focus.



DOF and Selective Focus

The effects of depth-of-field relates to the way the *eye moves around a photo*. Your eye will be attracted to areas of an image that are in sharp focus, and if part of the image is in focus and the rest is not, *your eye will gravitate to the area that is in focus* before moving around the frame.

Portrait photography is all about *focusing attention on the subject*, with the most important element usually being their eyes. Using selective focus points is a great way to accomplish this.

For example, let's say you want your subject in focus and the background rendered blurry, or out of focus. The easiest way to achieve this is by using a short telephoto focal length, such as an 85mm, and selecting a wide aperture setting of $f/4$ or greater. Presto... shallow depth-of-field!

Distance and DOF

The effects of depth of field vary depending on the distance between you and your subject. This isn't a big deal when shooting at small aperture openings such as f/8 or smaller, but it is important when shooting at larger aperture openings such as f/2.8, which provide a smaller depth of field.

For example, let's say you are standing close to your subject and shooting at f/2.8... you will find that very little of your subject will be in focus, such as having your subject's eye(s) in focus while their ears are blurry.

Keeping the same aperture opening of f/2.8, while increasing the distance between you and your subject, produces a different result. Here you can compose for a full-body shot and get the entire person in focus, ears and all. So when it comes to using shallower depths of field, distance is an important consideration.

Creating Shallow DOF

Although aperture is a major factor in determining depth-of-field, it is not the only one. If you don't have a lens with a maximum aperture of f/2.8 or greater, below are a couple tips to help you achieve the narrow DOF look:

Bring your subject away from the background: the farther away your subject is from the background, the more the background will be rendered out of focus. Depth of field needs depth - this applies to wide aperture lenses, too.

Shoot longer focal lengths: long focal lengths (85mm or longer) create shallower depths of field more effectively than shorter focal lengths. Even at smaller apertures like f/5.6, you can still blur out the background if you're shooting with a longer focal length.

The Reciprocal Rule

The Reciprocal Rule states that *while hand holding your camera*, your shutter speed should not be slower than the reciprocal of your *effective focal length* (but not lower than 1/50) in order to avoid camera shake.

The reciprocal of a number is the multiplicative inverse of the number, or one divided by the number. For example, *the reciprocal of 100 is 1/100*.

Let's say you're using a *50mm prime on ASP-C camera* to capture a portrait, and to apply the reciprocal rule, you would need a *minimum shutter speed of 1/80* to capture a sharp image (it would be 1/50 on a full-frame camera.)

Now let's say you switch to your *70-200mm telephoto lens* (full-frame.) To apply the same rule, you would need to shoot at a *minimum shutter speed of 1/70 at 70mm, and 1/200 if you're zoomed in (racked out) at 200mm*.

Manual Mode

Both *aperture priority and shutter priority work well in variable light conditions*, such as the sun is going in and out behind clouds, or the light fading at the end of the day. In these conditions, the camera will alter the exposure settings as the amount of ambient light changes.

However, if the *light level is steady, it may be easier to use Manual mode*. The reason for this is that the automatic exposure modes of the camera may change the exposure settings if the balance of light and dark tones within the frame changes.

This can happen even if the amount of light falling on the subject doesn't change. Examples of this are if your subject is wearing a white shirt against a dark background, or if your subject is backlit. Exposure settings may also change if you move your subject, even if the light levels don't.

ISO & Digital Noise

When *shooting outdoors in bright light*, you can keep your *ISO settings fairly low* (100-200). The reason being is that with so much available light from the sun, you don't need a lot of sensitivity to get a decent exposure.

However, move indoors and things change. Because the interior light levels will be drastically reduced, the same setting that would work for shooting in bright, sunny conditions will fail miserably in this environment.

One of the easiest ways to *compensate for low-light conditions* is by *increasing your ISO setting*. Just be aware that the more you increase your ISO's sensitivity to accommodate for the low-light levels, the more you will be introducing *digital noise* into your photos.

Keep in mind that the more your light level decreases, the higher the sensitivity (number) your ISO will need to be, and vice versa.

Metering Systems

Most digital cameras have at least *three different metering systems*, each of which is useful in particular situations, and none of which should be used in all situations. These metering systems are *multi-zone*, *center-weighted* and *spot* metering.

Metering properly can be a tricky subject to come to terms with, but thankfully modern cameras are making this job easier and easier. However, until camera manufacturers come up with a perfect solution, you still need to be aware of your working light.

Now, let's take a look at the two different metering modes (*multi-zone* and *spot*) you'll use most for portraits, and learn more about which one to use when the time comes.

Multi-Zone Metering

Also known as *Evaluative* or *Matrix* metering mode, the multi-zone mode is considered the most advanced metering mode on your camera, and the one most often used by photographers.

This mode works by dividing the entire image into a number of zones, and when activated, the camera uses readings taken from these zones to *calculate an average exposure*.

The multi-zone metering mode is best used for situations with *nice, even lighting*, and will be your go-to metering mode for 90% of your time behind the lens.

However, as wonderful as they are, multi-zone metering systems can have trouble with very high-contrast scenes, such as backlit subjects.

Spot Metering

Unlike multi-zone metering, which measures the exposure from the entire frame, *spot metering* mode allows you to *meter from a specific area of the frame*. This is helpful if you're shooting a subject that has a lot of very light or dark areas (high contrast), or both.

When using this mode, be sure to *position the spot meter over a mid-tone area*, otherwise, you will experience exposure issues. For instance, if you meter off of a bright area of your subject, such as their white shirt, you will get an underexposed image, and vice versa.

Spot metering can be tricky, however, with a little practice you will be handling difficult lighting in no time. It's a great way to ensure that you get a proper exposure when photographing in less than ideal lighting conditions.

Autofocus Systems

Modern DSLRs have different *autofocus systems*, with the *two dominant* systems available today being *active* and *passive*.

An *active system* (phase detection) has an infrared beam that can determine the distance between the camera and the subject, and then adjust the focus accordingly.

A *passive system* (contrast detection) measures changes in contrast, and to these systems, maximum contrast equals maximum sharpness.

'My camera won't focus!' Subjects that are flat in color and detail will confuse a passive system. These systems need an edge of some kind to provide contrast to focus on. If it can't find that edge/contrast, it will hunt for focus and not allow your camera to achieve focus lock.

Autofocus Modes

AF-S or *One Shot* pulls focus once and holds it. After you press the shutter button halfway, the camera will find and hold focus until either you take the photo or release the shutter button. This is the most common setting for portrait photography *when your subjects are not moving*.

AF-C or *AI Servo* will *continuously attempt to keep your subject in focus* for as long as you have the shutter button halfway depressed. This mode is most common among sports shooters, however, it is also very handy for capturing torpedoing toddlers.

AF-A or *AI Focus* does both, switching between single and continuous mode depending on if your subject is moving or stationary. While this seems like the ideal setting that gives you the best of both worlds, it does have some drawbacks that can give you less than predictable results.

Auto and Selective Focus

Your camera has two focus point options available to help you achieve focus: ***Auto (all) Point Focus*** and ***Selective (single) Point Focus***.

Auto Point Focus works with the autofocus systems discussed earlier and allows the camera to select ***what it thinks should be in focus***. This obviously has some drawbacks because the camera doesn't know what you want to focus on, and really doesn't care for that matter... it is just looking for something to focus on.

Single Point Focus involves you moving the selected focus point around the frame until it is in front of what you want to be in focus, which gives you much more control over what's in focus. For portraits, this ***single focus point is usually placed on the subject's eye closest to the camera***.

Use Selective AF Points

When capturing portraits, ***making sure your subjects eyes are in focus is an absolute must***. Portraits are less impactful when the eyes are soft, and you need to be able to control where the camera focuses to ensure your subject's eyes are indeed tack-sharp.

While auto-point AF systems are useful for some situations, they are not particularly useful when it comes to portraits. AF systems are designed to focus on the nearest object, which could be the tip of a nose.

To make certain you get the subject's eyes tack-sharp, you simply need to ***use a single selective AF point***. Using only one focus point ***enables you to decide what the camera focuses on***, which in the case of portraits, is your subject's eyes. The center AF point is more sensitive and accurate as compared to the outlying points, and achieving focus will be faster.

Auto Exposure Lock

AE-L allows you to *lock in the current exposure setting so that it doesn't change when recomposing your image*. This is a very helpful function when using the 'focus and recompose' technique.

By default, when the shutter button is halfway depressed, the camera's autofocus and metering system *both focus and meter from the same area of the frame*. For most situations, this approach works great. But, with Auto Exposure Lock, you can *take an exposure reading independently of what you are focusing on*.

AE-L is most *effectively used with the spot metering mode*, which allows you take a meter reading from a *specific part of the scene*. This is useful in tricky lighting situations that tend to fool your camera's multi-zone metering system, such a backlit subjects.

How to Use AE-L

Focus: set the focus mode to single shot (One Shot/AF-S) and the AF-Area mode to Single or Selective Point, and position it to center.

Select metering mode: set the metering mode to either Spot or Center Weighted - you will find Spot to be more accurate.

Exposure: position the metering circle over the area you want to meter from, and press the shutter button halfway to set focus and exposure. Focus is also set at this point if you are using autofocus.

Activate AE-L: while keeping the shutter button halfway pressed, press the AE-L button to lock in the exposure. On some cameras you may need to keep the AE-L button depressed to keep the exposure locked.

Reframe: now, you can recompose without the exposure changing.

Exposure Compensation

Exposure compensation is one of the easiest and most often used features that allows you to *dial in the perfect exposure for your shot*.

As sophisticated as metering systems are on today's modern cameras, there are times when the camera simply won't get it right. Exposure compensation *gives you the power to override the camera's set exposure*, allowing you to either increase (+) or decrease (-) the exposure as needed.

Exposure compensation settings are 'sticky,' meaning *they will remain in the same position until you change them*... even if you turn off your camera. So, you will want to zero-out your exposure compensation whenever you are done using it, otherwise, every photo you take afterward will either be too bright or too dark.

How EV Works

Exposure compensation *only works if you are shooting in an automatic or semi-automatic shooting mode*, and *does not work in manual*. When the camera 'compensates' for either an increased or decreased exposure, it has to *either get or take away light from somewhere*.

For instance, the previous two images were shot in aperture priority at f/2.8 with an ISO of 6400. For the left image, the camera needed a shutter speed of 1/500 to make what it thought was a correct exposure.

To brighten the image to an acceptable level, an exposure compensation of +1 EV was applied. Since more light was needed to make a brighter exposure, it *slowed down the shutter speed from 1/500 to 1/250*.

TIP: keep an eye on your shutter speed to make sure it isn't too slow.

Lens Options

When selecting a portrait lens, you'll need to consider several factors that affect the look of your photos, such as lens distortion, distance, and the look you want. Below are the three main categories that all lenses fall into:

- **Wide Angle:** A wide angle lens has a short focal length. 24mm and 35mm lenses are considered wide angle and will require you to get close to your subjects.
- **Normal:** A normal lens has a medium focal length around 50mm, which is similar to human vision. This focal length will require a *medium* distance from your subject.
- **Telephoto:** A telephoto lens has a longer focal length, such as 85mm or greater, and will allow you to capture photos of your subject from a distance.

Distortion in Portraits

To get the best perspective without facial distortions, **portraits look better when taken with lenses that range from 50-135mm**. The reason wide angle lenses ranging from 14mm to 35mm are not used is because they can distort (bloat) people's faces.

A **50mm**, or normal lens, can be used for **full length** or even **waist up portraits**. While an **85mm** lens is good for **head and shoulders portraits**. However, a **135mm** lens is considered the ideal length for **tight shots showing just the face of the subject**.

Opposite of wide-angle focal lengths, lenses 200mm and longer can create a 'pin cushion-effect' where the face looks flat or appears to have caved in on itself a little. Similar to wide-angle lenses, focal lengths longer than 200mm do not create very pleasing portraits.

Zoom vs Prime Lenses

Lenses are categorized as being either a prime or a zoom. **Prime lenses have a fixed focal length** and you must physically move towards or away from your subject to change composition. **Zoom lenses can change their focal length inside the lens** so you can get closer to your subject without physically moving.

Why Choose a prime? The main advantage of a prime lens over a zoom is **access to wider apertures**. Apertures in the f/1.2 or f/1.4 range allow you to achieve faster shutter speeds in low light, as well as taking advantage of extremely shallow depth of field to isolate your subject.

Why choose a zoom? The main advantage of a zoom lens over a prime is **versatility**. By using a zoom lens, you can easily frame and capture a fleeting moment. Zooms also have higher f-stops (max f/2.8) and require more light than primes, which means higher ISO settings in low light.

50mm Prime Lens

The focal length of a 50mm prime lens behaves similar to the 55mm end of an 18-55mm kit lens. **Full-frame cameras do not have a crop factor**, and will cause your 50mm behave like a **true 50mm**. APS-C cameras do have a crop factor, and will cause your 50mm prime to behave like an 80mm.

If you already have a kit lens that covers this focal length, you may be wondering why you would need a 50mm prime lens at all. Well, there are some significant differences between the 50mm focal length of a prime lens and that of the 50mm focal length on a kit lens.

- **Wider apertures:** shallower DOF, allows shooting in lower light
- **Better optics:** better glass equals better (technical) images
- **Short telephoto:** 50mm prime + APS-C camera is ideal for portraits
- **No zoom:** forces you to 'see' your subject more clearly

85mm Prime Lens

If you have a full-frame camera, then the 85mm prime is a solid choice. This lens is considered a *short telephoto* and is ideal for portraits because you can get in nice and tight on someone's face, or you can take a step back and get the whole person.

Since *full-frame cameras do not have a crop factor*, you will get a *true 85mm focal length*. However, ASP-C cameras do have a crop factor, which will cause your 85mm prime to behave more like a 136mm ($85 \times 1.6 = 136$).

Similar to the 50mm prime, the 85mm focal range can be found in telephoto lenses. Other than the short telephoto benefit, which the 85mm already has, the same differences of wider apertures, better optics, and the need for you to zoom with your feet all still apply.

Telephoto Lenses

Whether you can't get close to your subject, or simply don't want to, telephoto lenses allow you to *capture photos from a distance*. By not snapping away in your subject's face, they will be more comfortable and you'll have more natural looking portraits.

Compression is another benefit of using longer focal lengths. Lenses with shorter focal lengths tend to show some amount of barrel distortion, and the shorter the length, the more distortion you will see. You *won't see any distortion with a focal length greater than 100mm*.

Telephoto lenses also allow you to *throw backgrounds out of focus more easily than you can with shorter focal lengths*, even when your subject is only a couple feet in front of them. Just keep the Reciprocal Rule in mind and make sure your shutter speed doesn't drop too low.

Wide-Angle Lenses

Believe it or not, wide-angle lenses do have a place when it comes to capturing portraits, *just not ones that are up close and personal*... unless you are deliberately trying to create a distorted image. In fact, you can go as wide as 17mm in some cases... it all comes down to the type of portrait you want to capture.

The type of portraits that benefit most from a wide-angle are those where the *subject's context is important*. Use this characteristic when you have an interesting or unusual background that helps to tell your story.

Given the distorting nature of wide-angles, not everyone looks great in these types of shots. *Those who are heavier are the least likely to look good with a wide-angle lens*, which visually adds perceived weight from the stretching of elements within the frame, especially near the edges.

Why Wide Apertures Matter

As discussed, primes lenses have wider maximum apertures than zooms, which you can use to create portraits with beautiful shallow DOF.

These wide maximum apertures used in conjunction with higher ISO settings allow you to *take hand-held photos in low light conditions*.

Many zooms have a maximum aperture of f/4 or even f/2.8, but shooting at the widest aperture setting of any lens will always cause image quality to suffer. This degradation of quality is known as *diffraction*, and will be apparent at both the *widest and narrowest ends of the aperture range*.

For example, a photo taken at f/2.8 on a prime lens with a maximum aperture of f/2 or wider, will have better image quality than one taken at f/2.8 on a zoom lens with a maximum aperture of 2.8.

Standard vs Pro Lenses

Most lens manufacturers produce lenses for the consumer and the professional, each with their respective price points. So, other than cost, what are the differences between the two options?

The **primary difference is build quality** - the barrel and mount of a pro lens are usually made from magnesium and aluminum, not plastic, and many are weather sealed. The optics are high quality with superior coatings that naturally provide exceptional image quality.

Pro-level lenses are typically much heavier due to their construction and hold their value better when it comes time to sell or trade in on new gear. Keep in mind that you can still get very good results with a standard lens, you just have to be aware of the differences. **If cost is not a consideration, then getting pro glass is an obvious choice.**



Pro Glass
Canon 50mm f/1.2 L
Street Price: \$1600



Standard Glass
Canon 50mm f/1.4
Street Price: \$399



Standard Glass
Canon 50mm f/1.8
Street Price: \$125

Image Stabilization

Image Stabilization is a handy feature that helps 'settle' your camera and permits the use of shutter speeds 2-4 stops slower, which is useful for taking *hand-held shots in low-light conditions*.

When is stabilization most useful? If you are taking images at high shutter speeds like 1/500th of a second, you essentially have no real use for image stabilization... the fast shutter speed cancels out any camera shake.

Image stabilization is useful in situations where you don't have enough light to get a fast enough shutter speed, such as sunset and indoors.

- **Canon:** IS (Image Stabilization)
- **Sigma:** OS (Optical Stabilization)
- **Nikon:** VR (Vibration Reduction)
- **Tamron:** VC (Vibration Compensation)

Do You Need Stabilization?

While image stabilization is great, nobody really needs it. Sure, it's a nice feature to have when you're shooting hand-held in low-light conditions, but it's becoming less of an issue as each new camera that comes out is getting better at handling higher ISO levels.

Most beginner kit lenses come with image stabilization, which is helpful because they have limited maximum apertures, such as f/3.5 or f/4.

The *best image stabilizer is your tripod*, which will come in handy when you are shooting formal portraits where everyone is behaving themselves. However, children rarely give us that luxury, and essentially makes using a tripod impractical... and this is where stabilization and/or having a camera capable of handling high ISO settings is necessary if shooting in low light.