

Why you *might* need an external Flash (or not).

Cards on the table.... I'm not a big user of flash. In fact, I hardly ever use it, except for some fill-in on occasion. But....

If you have used a camera then you have probably also used a flash as well. Almost every camera these days (compact, DSLR, etc) comes with a flash built into it. Most people who own a camera also leave their cameras on full auto and let the camera decide when to use it as well. This results in many shots in low light where a flash is needlessly being fired and also leaves less than desirable results. You'll have seen sports events where everybody's firing their flash at a subject that's about 100m away. (Totally useless, of course - the power of a flash on a point and shoot or on the top of a DSLR is, at best, enough to illuminate to about 7meters.)

Then you see people with these big bulky flashes that they attach to the top of their camera. Are these really that much better than the flash you already have? Well the answer should come as no surprise when I say yes.... it most certainly is better.... much better, in fact. But why?

The big problem you have with your built-in flash is the direction it fires. This may sound odd because the light is firing at your subject. Isn't that good? No, it's not. It creates flat looking, 'deer in head light' images and also leaves very harsh shadows, plus major cases of red eye.... or, in the case of animals, green, blue, grey or some other colour eye.





These two shots illustrate what I am talking about. Shot one shows that while the floor has had the right amount of light on it the face has had too much. The dog looks a bit like he has been caught in the headlights of a car. He is also suffering from a case of blue eye.

In the second shot you can see the green eye. You can also see clearly the very harsh black shadows that direct flash can cause. Look at the leg and the edges of practically everything in the picture.

So what exactly causes these problems?

Red eye - This is light that has been bounced from the eyes directly back into the lens and causes this red eye effect.

Deer in headlights - The light from a direct flash on your camera is small, harsh and in general has a short distance to the subject. It is important to understand that light has a very short fall off rate. You actually need 4 times the light for it to travel twice the distance. This means that if you use enough flash to light up someone 3 meters away then

someone standing 6 meters away will be very very under exposed because only 1/4 of the light that is hitting the closer subject is hitting them. There are ways around this problem but it often leads to more light hitting the main subject than needed.

Flat features - The world is 3d and a picture is not. It's 2d. To make an image look more 3 dimensional you will want to use light to show the features of the face. For example, if more light is hitting one side of the face than the other this will help give shape to the face. Direct flash gives even light over the whole face and causes it to look flat.

Harsh shadows - While it's called direct flash you will notice the flash is actually to one side of the lens. It is just enough to one side to cause these slight shadows to show up. Because the flash is small and harsh the shadows are very strong.

So how does an external flash get round this?

Not all external flashes do, but as long as you get one that allows it to swivel (preferably up as well as left, right and backwards), you can overcome all of these problems. Any flash gun which doesn't allow all this movement should be ignored. You can get reasonable flashguns with 'swivel and bounce' from third party companies, like Metz. Check, though, that it gives as many of the facilities as the Canon, Nikon etc equivalent.... there are some metering features of the 'same brand' flashguns that may be missing from the 3rd party version.

The flash should be able to swivel to point in practically any direction, has both manual and TTL (through the lens) exposure (basically allows auto flash exposure) as well as having a built in diffuser and bounce card. The diffuser spreads the light over a wider area but makes it weaker (less harsh) and the bounce card can be useful to fire just a small amount of light forwards while having the flash pointing up. I have used the diffuser but I wouldn't worry too much about the bounce card as I haven't really found its worth while using.

It's worth pointing out special "diffusers" built for most DSLRs - they're known as the 'Gary Fong' flash diffusers and retail for about \$30. They're only two pieces of plastic so that's quite a lot of money, but they do a good job.

So let's have a look at some benefits of using one of these flashes with just a few basic tips and one very useful technique.

Bouncing the flash

This technique will totally change the way you shoot indoors. Rather than shooting everything at high ISO and wide aperture, we can fire away at ISO200 or 400 and whatever aperture you require. This fact alone gives much cleaner and sharper images. However it's still not the best thing about it. It is the Bouncing technique itself that changes how you shoot indoors.

The problem you want to overcome is direct flash. To do this you need to have the light coming from another direction. So what you do is bounce the light. Fire it to the left at a wall and it will bounce back lighting your subject from the left. Bounce it off a wall to the right and you now light your subject from the right. Fire it up and you get something resembling ceiling lights and fire it backwards and you get a very diffused light coming from

behind.

You can mix the left, right and behind directions with the up direction to fire at where the wall meets the ceiling to get lighting that's even more diffused and even.

For example

Flash fired to the right.



Flash fired up and to the left.



Flash fired up and behind



None of these images suffer from any of the problems the original shots taken with direct flash did.

Red eye - This is no longer a problem because the light is not bouncing off the eyes back into the camera any more.

Deer in headlights - No longer a problem because the light has travelled further - and it has a lot further to go before it becomes weaker. Working on the basis that light on a subject twice the distance as your main subject only has 1/4 of the strength and that you have bounced the flash so it has to travel a lot further to reach your subject, you now have a larger area with more even lighting. So, rather than only illuminating the first 3 meters, it may have covered 10m. Not only does this mean that the light can travel further at a similar strength to your main subject but if you bounced the flash to the side then the light might actually be even because they are both the same distance from the wall. Confused? Don't worry - it works. The fact that the light is coming from a totally different direction has completely changed how light is hitting your subject. The other reason is that by hitting the wall first the light has been massively diffused making it no longer a small/harsh light but rather a large/soft light. This gives much more even and flattering results.

Flat features - The light is now coming from the side, allowing you to light one side more than the other giving shape to the face. Look at the example of my self portrait. The right hand side of the shot has more light hitting it than the left giving a more rounded feel to the face and a much more natural look.

Harsh shadows - No longer a problem. The shadows are completely off frame (or where ever you want them to be) because you are now controlling the light's direction.

Another bonus you end up with is catch lights in the eyes. These are the reflections of the flash light in the eyes and it really helps draw you into them.

Are there any things to look out for when bouncing the flash?

Firstly you need a suitable surface to bounce a flash off of. A white wall is white because it reflects all colours in the spectrum. A red wall is red because it only reflects those that make up red. This means when you bounce a flash off a coloured surface it will take on that colour. Ideally a white wall is what you want to use. However if your only option is a coloured wall, give it a try and see if you like the results. A green wall could really make your subject look rather ill.

Your flash probably won't be the same colour as the room lights (in-fact it's almost a certainty). You can get around this by buying gels which you put over your flash but it's not always needed. Just be aware that in some cases you may end up with some very strange coloured lighting combinations that can clash.

If you are outside you won't have anything to bounce off so you can buy reflectors to do this or buy triggers to take your flash off camera..... but that is for another article.

So keeping in mind these few things you should be able to end up with sharp, low noise shots that look like they were taken in very natural light because none of the things that scream FLASH are present in the shots. I would say a lot of the images look like they were simply taken by a bright window more than anything.

