Sports Photography

A Guide to Camera Setup and Exposure with Tamron Pro Photographer, Jillian Bell

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Jillian Bell *is a member of Tamron's Technical Team. Tastefully merging form and artistic flare, her emphasis always lies in the subtle details. Through product training and consumer workshops her role with Tamron is to travel the country educating consumers and sales associates on choosing the right equipment for varying needs. Photography is a useful tool, and her goal is to inspire others and build on photographic skills creating better, more consistent results.*

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Jillian Bell hits fields and courts to shoot the fast action of sports photography with her bag of Tamron lenses.

The play clock winds down, players running by. Everything is happening so fast!

The idea of creating this sports photography guide started with nieces and nephews. I could always tell when the school season was starting up again because I got calls from my family asking how to set up their cameras for the games. "I know you told me this last year," they'd say, "but my photos are blurry again." Digital SLR cameras function best when you give them as much information about your situation as possible, especially in dark, fast action situations.

The goal in this eBook is to set up your camera properly before the game, cutting out variables and simplifying the situation. It takes practice, and you might not get it right away, but that's okay. It gets easier. Inside, you will find my method for achieving correct exposure for sports photography. It is not the only way, but it works for me.

I always think about the game before I go. My goals determine what I wear, if I bring a bag, what lenses will I shoot? Bleacher events are the easiest to bring a bag along to keep gear in. If I know I will be walking around, I try to limit my equipment to one or two camera bodies, each with a lens on it. One on a cross body strap; the larger on a monopod. I do not bring a bag because there really isn't a place to set it down for long periods of time.

A few of the Tamron standard, telephoto and all-in-one zooms Jillian carries to a game.

LENS USED:
SP 70-200mm F/2.8 Di VC USD

SETTINGS:
Focal Length: 200mm
Exposure: F/2.8, 1/180 sec., ISO 640

TIP ONE: Take some time and think about the sport you are photographing. The hardest part of capturing action is anticipating it. Talk to your kids about plays they run. Where are the games held? The more informed you are, the less there is to think about "in the moment." In general, outdoor sports require longer focal lengths such as the Tamron SP 70-300mm Di VC USD or the Tamron SP 150-600mm Di VC USD. In contrast, indoor auditoriums normally need wide-angle lenses with brighter apertures for the best results. For example, the Tamron SP 24-70mm F/2.8 Di VC USD is a great lens for courtside photographs. If you want to capture defense from across the court, use the Tamron SP 70-200mm F/2.8 Di VC USD.

TIP TWO: There are two general kinds of photographers you will find at any game. The first is the "Family/Friend Photographer." The gear they carry is compact; they sit with the fans to cheer on their team. For this purpose, I recommend the Tamron All-in-One lenses. You won't need to change lenses and you can bring it into any situation. The second is the "Team Photographer" type. Their gear is professional in nature; changing positions several times during the game. You will often find them along sidelines or by the team. To stay anonymous, wear black or non-descriptive clothing, allowing you to travel into enemy territory if necessary to get the shots you need. Knowing the coach, team and venue is an advantage here. You can sometimes get access courtside or along the sidelines if you know who to ask. Always check for photographic restrictions before heading to the venue, e.g., most college arenas restrict lens size to 6 inches.

TIP THREE: To get the best photos, where you sit makes all the difference. Think again about the sport. Do not try to photograph the whole game at once. Simplify!

Focus on defense, then offense - one player then the next. For the "Team Photographer" type spend time on each player individually as they play. Are they right or left handed? What position do they play? Do certain players always pass to each other? All these factors determine your best placement.

LENS USED:
SP 70-200mm F/2.8 Di VC USD

SETTINGS:
Focal Length: 95mm
Exposure: F/2.8, 1/400 sec., ISO 2500

TIP FOUR: To set up the proper exposure, we have to understand the concepts that make up exposure. Shutter speed, Aperture and ISO - These three factors evaluate the light in any situation and act codependent with one another. Shutter speed is obviously the most important. Without it, we cannot stop action. My minimum goal is an exposure of 1/250th of a second. This will stop elementary and middle school sports, and high school static action. Motion blur is the most common problem with action photography. If you see blurry action, a faster shutter speed is the solution. 1/500th – 1/750th sec is my ideal shutter speed to achieve. 1/1000th – 1/2000th sec will stop pitches and slap shots easily.

LENS USED:
SP 70-200mm F/2.8 Di VC USD

SETTINGS:
Focal Length: 167mm
Exposure: F/2.8, 1/125 sec., ISO 640

TIP FIVE: Outdoor, day games are the best places to find these fast shutter speeds. Any aperture is sufficient. I shoot many team sports (i.e. soccer, football or lacrosse) at F/8 for better sharpness. Night games and indoor auditoriums are notorious for being dark. To combat this, spend the money; get a lens with a 2.8 aperture. Letting in more light will help speed up shutter speeds in these non-ideal conditions.

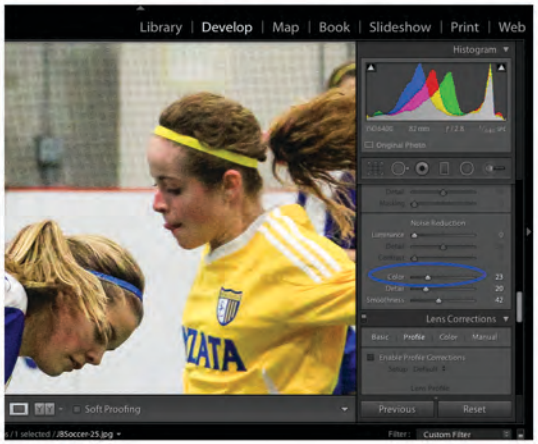
LENS USED:
SP 70-200mm F/2.8 Di VC USD

SETTINGS:
Focal Length: 121mm
Exposure: F/2.8, 1/1000 sec., ISO 5000

TIP SIX: The last factor, ISO, is the other defense against dark situations where fast shutter speeds are needed. If an f/2.8 lens isn't an option or you still need more speed, choose a camera that can achieve high ISO values for better results.

LENS USED:
SP 70-200mm F/2.8 Di VC USD

SETTINGS:
Focal Length: 82mm
Exposure: F/2.8, 1/640 sec., ISO 6400



TIP SEVEN: Higher ISO values can result in unappealing noise within your photos. A common fix is to use noise reduction within your camera or computer. I prefer to shut off any noise reduction my camera has to offer for control over noise when editing. Too much noise reduction can ruin a photo. Within my software a "color" slider under "noise reduction" keeps overall sharpness and decreases unsightly noise. If you have an immediate need to share your photos, use the lowest noise reduction setting in your camera.

TIP EIGHT: Now that we understand these values, grab your camera to make sure the settings are correct. Turn ON a high-speed continuous shooting mode. I recommend a camera that can handle at least 5fps (frames per second). Too slow and you'll miss moments. Set your focus to a center weighted, single-point. In lower light conditions, it is easier to track action this way because the center focusing point is the most sensitive. Lastly, I prefer shooting in JPG rather than RAW for sports photography. RAW files are huge in comparison and can slow down your camera. As stated in the introduction, our goal is to set up your camera properly before the game. By doing so, in theory, you do not need a RAW image to edit.

LENS USED:
SP 70-300mm Di VC USD

SETTINGS:
Focal Length: 300mm
Exposure: F/5.6, 1/640 sec., ISO 6400

LENS USED:
SP 150-600mm Di VC USD

SETTINGS:
Focal Length: 309mm
Exposure: F/8, 1/800 sec., ISO 400

TIP NINE: This is where it starts to get easier. Again as stated, we will be shooting in manual. To do so, we first have to find a correct exposure. I start in Aperture Priority mode (AV for Canon™ cameras; A for Nikon™ cameras). Set the aperture to the lowest value on your lens. For instance, with the Tamron SP AF 70-200mm F2.8 lens, set the aperture to F/2.8. With the Tamron 16-300mm F/3.5-6.3, set the aperture to F/6.3 since F/6.3 is the lowest possible value at 300mm.

TIP TEN:

The next step is a bit of a guessing game. Still in aperture mode, set an ISO that achieves the ideal shutter speed. Outside, during the day, my default is ISO100 or ISO200. During night games, or indoors, my default starts around ISO1600. While pointing in the direction of the court/field, take a test shot to see what shutter speed these two values give. This process starts when the teams are warming up. You can also practice on the matches before your child's match. If the shutter speed is fast enough, you're good!

If it's still too slow, set a higher ISO until the optimum speed is achieved. Tips nine and ten give us the proper shutter speed, aperture and ISO for the game.

LENS USED:
SP 150-600mm Di VC USD

SETTINGS:
Focal Length: 600mm
Exposure: F/8, 1/800 sec., ISO 400

TIP ELEVEN: Set your camera to Manual Mode (M). Plug in these three values and let the games begin! Simply, set it and forget it. Since your lighting doesn't change indoors, the exposure doesn't change. Now you can focus on the action as it happens.

The hardest situations are at night games where your light can change as the sun goes down. To combat the changing exposure, bump up your ISO incrementally as you notice your photos getting darker. This takes some practice, but with everything, it gets easier with time. Another option, if you're camera is capable, is to change your ISO from Manual to AUTO. Some newer cameras have this setting and allows your camera to automatically make ISO adjustments as needed.

A BONUS tip: Keep a log of gyms and their exposures—when the next year's season begins, you will be a step ahead.

LENS USED:
SP 180mm F/3.5 Di

SETTINGS:
Focal Length: 180mm
Exposure: F/3.5, 1/180 sec., ISO 800

TIP TWELVE: For more dramatic and professional looking photos, use postproduction cropping. A center weighted photograph is easier to track action, however compositionally it's not always ideal. Cropping is used to cut out distractions and unwanted negative space. Modern day cameras (15mp or more) can handle a 50% crop easily. It is possible to crop out half your photograph and still make an 11x14 enlargement. I use this tip often to turn horizontal shots into more dramatic vertical ones.

LENS USED:
18-270mm Di II VC PZD

SETTINGS:
Focal Length: 250mm
Exposure: F/6.0 1/800 sec., ISO 100

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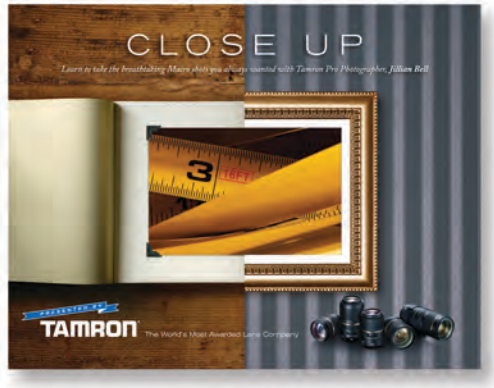

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