

Assignment

Sport

We have all at one time or another been captivated by sports images. I expect in Canada it's generally going to be a Hockey player, like Sydney Crosby scoring the winner in that Olympics. For me it's going to be a great cricketer whacking six runs for England, or a footballer scoring a goal for Brighton. We have all been captured in the moment of human drama. We all like a good action photo and, in particular, if your kids play sports, you want to remember them in their toils.

Quality sports shots have been difficult to come by. Most people have limited access to events to photograph them. The further away you are from the event, the harder it becomes to capture the event in a pleasing manner. Sports are an event where crowd control is important, not only for the crowd's safety, but for the players also.

Location, Location, Location!



You can only photograph things you can see. The closer you are to someone, the better you can see them. Sports are no different. You have to get as close to what you are shooting as you can. A photographer with a press pass can get to the sidelines or other similar locations. You generally will not be permitted on the playing field. Depending on the sport, you most likely will be limited to designated locations. For most people, the situation is even worse. You probably don't have press access and are stuck in the stands for your shots. Get as close as possible. Even if you make it to the sidelines, you will be jostling for space with many other photographers, some of whom may be professionals - paid to get the best shots - they've worked hard to get there. In our city we are extremely lucky - we can get quite close to most sports events of the Universities and Colleges. Only Hockey can be difficult, with the big plexi-glass in the way. Rugby, Lacrosse, Soccer, Baseball, that thing they call Football, plus the indoor games of Basketball, Volleyball and others. It may be the best chance most of us will ever have to get good sports shots and, unless we planned to be professional, that's good enough.

You also have to be familiar with the sport to be able to capture the moment. This means knowing where to position yourself for the best action. This is critical because of angular momentum that will be discussed in the section on freezing action. Not only does it matter with the subject, but the background. Look at what is going to be behind your subject. While we will try to minimize the impact that a background has, it will still be unavoidable. So you need to position your self where the background is the most pleasing. Again, think of the very pleasant surroundings of the sports grounds of the RMC and Queens - you can't improve on that.

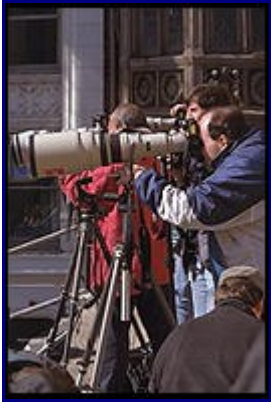
The Decisive Moment



Sports and Action photography is all about timing. It's about reacting. It's about being in the right place at the right time and it's about 'getting it right'. These are all qualities of the athlete and those of the photographer as well. Each sport has predictable and unpredictable moments. Under "Knowing your Sport", you will learn about these moments for individual sports. For instance, in basketball, you will have opportunities to photograph layups, jump shots, free throws, etc. Understanding the timing of these predictable actions allows you to capture the peak moment, when the action is most dramatic.

By knowing these moments you can anticipate the action. This helps in two ways, one it helps you with focus which will be discussed in a later segment, and secondly it helps you snap the shutter at the right time. The saying goes "If you see the action you missed it." This basically means if you wait for the soccer player to head the ball then press the shutter release, the ball most likely will be sailing out of the frame. You have to push the button before the action so that the mirror has time to flip out of the way and the shutter open and close. There is a delay between the image hitting your optical nerve and the shutter closing. You have to, through experience, learn what that time is and adjust for it.

Required Equipment



Most sports were shot on 35mm cameras because of their portability. The drawback, as ever, was that the photographer had to wait a while before knowing what had been captured. Digital has, again, opened up new possibilities with its inherent ability to show us what our results are instantly.

"Its not the equipment but the photographer who makes the picture" is generally a true statement. However with sports and action photography, having the wrong equipment means not getting the shots you want or need. This relates back to the section on location. The further away, the longer the lens is needed to capture the same image in the frame. Different sports require different lens lengths. For instance, basketball is generally shot from the baseline or sideline near the baseline. You generally can get good results with an 85mm lens in this situation. However, by the time the players are at mid court, you need a 135mm to capture them. If they are playing under the far goal, a 200-300mm lens is needed to fill the frame well, yet for shooting a soccer game, a 300-400mm lens is needed for just about anything useful.

Generally, for a 35mm camera, each 100mm in lens focal length gets you about 10 yards (9 meters) in coverage. This coverage means that on a vertical format photo, a normal human will fill the frame fairly well. Thus, if you are shooting American Football from the 30 yard line with a 300mm lens, you will be able to get tight shots in an arc from the goal line to mid-field to the other 40 yard marker. As players get closer, your lens may be too long. Many photographers will carry two bodies with two different length lenses for this reason.

Lens speed is also a critical factor. The faster the lens, the faster the shutter speed you can use, which as the lens grows longer, this becomes even more important. This will be covered in the freezing action section in more depth. If you look at the sidelines of any Division 1 college football game or an NFL football game, you will see people with really big lenses. These range from 300mm to 600mm or longer and even then, they may have a 1.4X converter or 2X converter on. You need fast shutter speeds to freeze action with long lenses. Every F Stop you give up requires a faster film or less freezing potential.

Most consumer grade long lenses and zooms have variable apertures, but most are F5.6 at the long end of the lens. F5.6 is good for outdoor day time shots, but becomes very inhibiting for night games and indoor action. Most professionals, and some lucky amateurs, use lenses that are F2.8 or faster. These lenses are very expensive. Using a mono-pod is a life saver with these big lenses.

Besides these long lenses, you need a camera that can drive them. Auto focus makes this easier on us, but the AF systems are not fool proof. Luckily, many sports lend themselves well to manual focus, so sometimes you can get a bargain on a manual version of a lens to use on a manual camera and still get good photos. However AF comes in handy for a few sports. Hockey and Soccer involve many subject to camera distance changes. Motion is less predictable and these sports are some what harder to manual focus. Football, Rugby, Basketball, and Baseball are quite easy to manual focus.

Flash is best avoided - it won't work unless you're about 20feet from the action and, if you're that close, your flash won't be welcome.

Other equipment which can come in handy are remote triggers. These allow you to mount a camera where you cannot be during the game and remotely triggering it, recovering it after the event. Basketball and Horse Racing are two good examples of sports where great photos come from someone who never sees the viewfinder while they are shooting. Pictures of NBA stars slam dunking the basketball taken above the rim or the winner of the horse race thundering by are done remotely.

Depth of Field -- Isolating the subject.

Dramatic sports photos are shot with the lens nearly wide open - like $f/2$ or $f/2.8$ or one stop from wide open. This is done for two reasons. First you need all the shutter speed you can get, which means shooting wide open, but just as importantly, it has to do with isolating the subject. As the aperture on a lens opens up, less and less of the photo is in focus. The longer the lens, the more dramatic the change. The larger the distance between the subject and the background the more out of focus the background will come. If you use a long lens and a fast aperture, then your subject will stand out and the background elements will have less impact on your photo. If you do want some background to be recognisable, you could shut the lens down to $f/5.6$ or smaller, as long as the action on the field is slow enough to warrant a slower shutter speed.

Reducing background noise is an important goal in many photographs, sports action or not. In studio or landscape settings, you have time to control the elements that make up the picture. Action photography is a "grab it now" type of shooting and you live with the background that is there. If you open up the lens to its maximum, you will find your subjects standing out and becoming memorable.

When you are shooting sports, in particular football and soccer, keep in mind that plays shot on the far side of the field are closer to the background than shots on the near side of the field. Thus if you are shooting a soccer player moving the ball down field and the player passes in front of the bench when you snap the shot, you will have a very distracting background. It may be hard to separate the player and ball from the background noise. Fences, signs, poles, bleachers, stands, and people on the far sideline can really mess up a good shot. Even though you might be shooting wide open, the background will be too prominent in these shots. Should they be avoided? If you have better shots, don't use it. However, it may be your best shot. Shoot it, just be aware that distracting backgrounds are more problematic on shots on the far side of the field.

Focus

An out of focus shot is useless. There isn't much you can do with them other than throw them away. So achieving crisp focus should be a goal of every one.

However, many times, manual focus works better. To understand this, you need to know how auto focus works. The camera takes a series of measurements across its AF sensors. It looks for contrasting lines. It moves the lens until these lines achieve the maximum sharpness. These sensors are located in the viewfinder of the camera. Different camera models have different sensor configurations and different capabilities. These sensors are either a simple spot meter in the centre of the view finder, a line of three sensors that run across the viewfinder, or a cross which runs side to side and top to bottom. Generally, these sensors do not cover the full range of the view finder and your view finder will have markings showing where the AF sensors are.

If you are following a football player as he runs down the side lines, or a horse as it heads over a water jump, you start by pointing the camera at the subject. If you have a spot AF sensor, you have to be dead on the subject or you will find a focused background and a blurry subject. Wide horizontal sensors will allow you to lead your subject a little bit or allow you to compose shots that are off centre. However, when you turn the camera to shoot a vertically framed shot, your sensors now run up and down. There are two things to be aware of here. First the AF is now vertical, thus your subject now has to be in the middle of the frame again, just like the spot sensor. Depending on the AF sensors in your camera, they may not focus on horizontal lines as well as vertical and you may find the AF less than responsive. However, you are shooting vertical sports, like volleyball, shooting vertically works pretty well.

Depending on your composition, many sports photos are shot vertically. Humans are vertical people and if you are trying to get a good shot of your favourite baseball player/cricketer hitting the ball, you want to turn the camera to a vertical format. Luckily, baseball lends itself well to a small AF sensor for pitchers pitching and batters batting.

Some of the high end cameras have a cross pattern of AF sensors and they are generally selectable. By using a sensor array in this format, you have good vertical and horizontal sensor patterns regardless of which way you hold the camera.

For those times where AF isn't working well, or if you have a manual focus camera, you need to understand how to focus. There are two primary means of focusing a camera: Follow focus and Zone Focus. Follow focus is where you keep your camera on your subject, rotating the focus collar attempting to keep the subject in focus. This works very well on side to side movement, where the camera to subject distance is not changing rapidly. You might use this method for football, auto racing, or other events where you turn side to side following the action. This requires practice to get down. A good way to practice is to go out to the street and follow focus cars as they drive past.

The second method is called zone focus. Here you expect the action to take place at a particular place, at the goal mouth on a hockey rink, or at the jump point on a long jump event at a track meet. You can focus on the area you want to be sharp and when the subject moves into the zone, you then take the photo. This is timing related. You need to practice the timing on this as well, Both of these methods allowed photographers to capture fantastic photos before the invention of auto focus and will continue to into the

future. Even if you have an AF system, you should learn to follow focus and zone focus because there may be times where your AF isn't available (low light, low contrast situations for instance) and you need to be able to come back with the shot.

Composition



Faces

"Give me faces" or "I want to see faces" is a common cry from the photo editor because that is the cry he gets from his bosses. The face is the primary source of emotion in a shot and that emotion is what makes or breaks a shot. When shooting a sport you need to be aware of the players locations. For instance, in basketball, if shooting from a side line, you only shoot people taking jump shots from the top of the key around the backside away from you. Any one taking a jump shot on your side of the court will be a shot of their back side.

In some sports, faces are hard to deal with. Football, Hockey, Cricket and Baseball tend to be difficult to catch faces depending on the level of play. Youth hockey for instance involves face cages on the helmets. Football at all levels of play involve face cages. Baseball or Cricket caps create harsh shadows across faces. Still it's better to get the cage in the shot than nothing at all because the face will show through better than the back of the helmet.

Vertical/Horizontal

There are two ways to hold a camera that affects the composition. This was discussed somewhat in the focus section regarding the AF sensors. You can hold the camera in the traditional way where the long side is horizontal to the ground. This is a horizontal or landscape format. If you turn the camera so that the long side of the film is perpendicular to the ground, you are now shooting vertical or portrait format.

Why would you want to do this? Think about the shape of humans. They are taller than they are wide. To fill the frame with a person playing a sport, they fit the frame better while holding the camera vertically. Even in a tight head shot, it fits better vertically. A lot of sports shots, in particular if it is of an individual is shot vertically. Horizontal shots are used more showing conflict.



Individual vs. Conflict.

The vertical vs. horizontal decision needs to be made based on your desired goal in capturing the scene. If you are highlighting an individual, you should shoot vertical. A majority of photo opportunities in basketball and baseball come from individual efforts.

However, there are times where you want to show the conflict in the scene, for instance two hockey players fighting for a puck along the dasher boards, or a soccer player being pursued by a defender. To capture these multiple people, you typically will have to shoot horizontally. You should make a conscious decision before you fire the frame as to your goals in capturing the shot.

Know your Sport, Know your Players

Each sport is different in the techniques used to capture the moment. Each sport has a limited number of unique shots. You can only shoot so many basketball games before you start feeling like, "been there, done that". Each sport also has opportunities to get "safeties". A safety is a shot that is easy to get and will give you something to publish if you fail to get good action.

It's also important to spend some time at an event and not rush the assignment. Many photographers are under intense deadlines and cannot devote enough time to their sporting events and it shows in their work. Take as many shots as you need, but keep thinking about composition and timing - and don't spend too long looking at the results of each shot on the LCD.

It's very important to know the sport you are covering. You have to understand some basic fundamentals of the game or you will become very frustrated.

Knowing your sport goes beyond the rules and players. Know your coaches and what tends to make them emotional. Get fan shots or cheerleader shots with their emotion. Any photographer will eventually get the "action" shot, but sometimes you need that crying cheerleader after a loss, or fans in costumes going nuts to completely tell the story. The game goes beyond the boundaries of the field and the rule book.

Baseball

Baseball is one of the hardest sports to shoot. The action is unpredictable. You wait and wait and then when you are half asleep, something happens. In fact, everything happens... in a 10 second burst. Runners are everywhere, the ball is being chased, thrown in again etc. The distances between the infield and the outfielders is huge and you'd need four cameras running - forget it, it can't be done. So concentrate on one area for a shot and hope you might be able to see where the ball might end up. Experience is everything.

Basketball

Unlike baseball, basketball is the easiest sport to shoot. Action is contained in a 100 foot x 50 foot area. There are two objects (the nets) where the action always heads. Basketball is a game of limited shots though. You can shoot jump shots, lay ups, free throws, blocks, dribbling, and defence. Zone focus works well in basketball. You know lay ups are going to happen close to the net, so focus on the net and wait on the action to come to you. Your focusing techniques will vary somewhat if you are on the side line or base line. If you are on the baseline, zone focus is the best method. If you are along the side, you can follow focus. Your safeties are free throws and players dribbling or looking to pass. At these times action is minimal and you can get some good tight shots of players.

Gym sports are probably the worst lighting situations you will get into, however, you can get away with much slower shutter speeds. When a player drives for a lay up or takes a jump shot, they almost pause at the top of their jump. This is the peak of the action and the shot should be taken then. Since they have stopped moving for a millisecond, that is the best time to freeze them. Once you have these shots under your belt, you can then start working on emotion shots, blocks, and other action which may not come along as often. Take several practice shots (with the camera, not the ball) and see which White Balance setting works best - most lighting in tungsten but the 'tungsten' setting will turn your shots too blue. Make your adjustments before the event.

Generally you can get away with anywhere between a 40mm and 100mm lens with 50-100 being optimal. This lets you cover out to about mid court. If you want to shoot shots under the far basket, you will need a longer lens. However a fast prime lens, like a 50mm f/1.4-f/2 is an excellent choice for most of your basketball action shots.

Football

Football is also an easy sport to shoot but may be one of the most equipment intense sports.

Football affords the fewest safeties. You can get the QB getting ready to pass or the coach on the side lines. However, the action shots are plenty. You will get opportunities to photograph the quarterback throwing the ball and running backs running the ball. Make sure you get these shots. Then you can go hunting pass plays to the receivers.

If you have freedom of movement, you want to set up 5-10 yards down field from the play. That way you get the QB and running backs coming at you.

Since football movement is up and down the field and most photographers shoot from a side line, football is a follow focus sport. It is a pretty easy sport to follow focus because the subject to camera distance changes constantly, so once you start focusing, you should be able to time your turning the focus ring with their movement.

Soccer and Hockey

Auto focus was invented with soccer and hockey in mind. These two sports involve rapid changes in direction. The subject to camera distance changes so fast, it's hard to follow focus because in an instant, the play is heading another direction. Zone focusing is a bit more applicable, except there is no guarantee the play will enter your focus zone. AF solves this problem because it tracks the play better than you. These two sports alone are the reason I moved from manual cameras to auto focus.

Soccer is a game where you need long lenses. Generally, you have good access to the side lines. At the college level, there may be some limits, but they probably are not as tight as

football because the number of players on the sidelines is much less. You will typically shoot from the touch (or side) lines, though you can get some good shots from behind the net or along the goal line. The lens of choice for Soccer is a 200mm F2.8 or longer. Many pro soccer photographers will have two cameras. One with the long lens mounted and a second with an 70-200mm zoom. This gives me some flexibility in composition while giving me the length needed to capture this large field game. If play gets close, they can switch bodies and go to the shorter lens.

Soccer is a good game to get some dynamic and exciting photos. Your safeties include players dribbling the ball and throw ins. Get these shots and then work on catching headers, traps, corner kicks, and goalie saves. Soccer headers require the most accurate guessing on timing. The ball will be out of the frame quickly. It takes a lot of practice to capture these and you need to be anticipating the players' jumps.

Ice Hockey, while similar to soccer in its unpredictable movement, has an advantage of being played in a smaller contained area. An 80-200mm lens is good for shooting hockey regardless of where the play is. To get shots on the far end of the rink, up to 300mm may be needed. Hockey however has some quirks that you need to be aware of. Frequently you are limited to shooting through the glass which limits the angles you can shoot or through chain link fence for outdoor roller hockey. In some arenas you are limited to one location and have a small hole to shoot through and you most likely will be competing with other photographers.

The ice or deck can really confuse your camera's meter. You will need to overexpose by at least one stop in ice rinks to get white ice. This takes away from your available shutter speed. Your safeties includes face-offs, and players skating with the puck/ball. Good shots can be had of the goalies, though many of your shots will be of players on the rink.

Volleyball

Volleyball is a rarely covered event, with beach volleyball getting more press than the traditional gym based variety. Volleyball can yield some rich, colourful and dramatic shots given the need and desire to take them. Your access in volleyball venues will vary drastically. For instance, during a high school game, you may be permitted to shoot along the sidelines, or not far behind the end lines. As the level of competition goes up, you will be moved further and further back.

Volleyball shots are tricky to use auto focus on. If you are shooting from behind the lines towards the net, the AF could trigger on the net, the back of the opposing players, the back wall, or just about any point in between. It is best to use a vertical sensor for this sport since people are going up and down and there is little side to side movement. For manual focus, you want to zone focus. From behind the end line, most all action at the net will be at the same distance from you, so focus on an area just a little behind the net and leave it there.

Golf

Not a chance! Golf would be a fairly easy game to shoot as far as action goes, but it is one of the toughest because of the nature of the game. That is you can get good action shots if you can get there at all. Golf is a long distance, one direction game. It is played over a course of thousands of yards and it is played from hole to hole. Secondly, it is a quiet game where the slightest distraction is not allowed. Finally, for your safety, your access to swing areas is limited.

Track and Field

Track and Field meets are a lot of fun to shoot. You get a lot of variety of shots, multiple opportunities to shoot most participants and events and there generally is a lot of emotion displayed during a track meet. The most difficult things about track meets are logistical.

Access can be restricted depending on the level of play that is being photographed. At a high school meet, there is little in the way of restrictions. Just stay out of the participants' way, or out of the way of projectiles like shot puts and discus and you are okay.

Logistically, track meets are hard to cover because multiple events are going on at once. If media movement is controlled, you may only get to shoot one or two events. But at a more relaxed meet, you will have more freedom to scoot from event to event. Because of time, multiple heats/attempts and so on, the track will generally be filled with races while the inside of the track contains the field events.

There are no specific safety shots in a track meet, but the individual events are fairly easy since almost all movement is predictable. Track events all move one direction. Shooting the finish, or turns provides the most dramatic events. For the hurdles, it is pretty easy to time the players as they peak over the hurdles. Relays, with the baton passing is probably the hardest part to capture because the runner taking the baton may obscure the runner handing it off. Use follow focus to catch runners and they move past, or zone focus if you are working on the finish line.

Field events are very predictable. Events like the high jump, long jump, and pole vault involve participants running towards an object, and then jumping over it. This is a zone focus heaven. Use a little depth of field (F5.6 or so) and focus on the bar for the high jump and pole vault and fire as they start up and over. You should catch them at the peak as they hurdle over the event. If you didn't get that run, don't worry, each player generally takes two or three shots and there are multiple players.

The Long jump, and its cousin, the triple-jump are pretty easy. They are also zone focus events. If you are at the end of the pit, focus just a few feet into the pit and fire when they hit the board and begin their jump. After a few jumps, you should have a feel for when they peak at their jump and will nail a few really good jumps. If you have to shoot from the side, you still zone focus over the middle of the pit, track the runner as they head down the track and fire when they go airborne.

The throwing and hurling events are likewise easy to shoot. The players have to stay within a confined space, so zone focus and you will do well. Try to catch them when their face is towards you and when their emotion is at its best or just after the throw.

If you have good access, you can get some great shots with an 80-200mm lens. If you are restricted you may need a 400mm or longer.

Gymnastics and Figure Skating

Gymnastics, as a rule, is a no flash event. The participants are easily distracted and the slightest hesitation can cause serious injury. The bad thing is most gymnastics happen in poorly lit situations. Lighting will be covered later.

Like Track and Field, gymnastics is a series of events with individuals performing. The events go on simultaneously and your access may be limited to minimize distractions. With the exception of the floor program, most of the gymnastics events are kept in a small area

which makes focusing easy and the movements are predictable. Even with the vault, your object is to catch the vault itself or the landing. So you will probably want to zone focus most of the events. The floor exercise will require follow focus or auto focus. Your lens choice will vary too much by access, but like other indoor sports you want the fastest glass available.

Events like the balance beam, rings, parallel bars, and the uneven bars provide several opportunities to capture the athletes in artistic, athletic, and emotional poses where capturing the moment is somewhat easier. The vault and floor exercises require more timing to get good shots. However, for the floor exercises, it's about emotion anyway, so catching the cute smiles and ballet style poses is critical to telling the story more than catching someone in a tumbling pass.

Figure Skating combines the problems of gymnastics with the problems of hockey. You are limited by your access to off ice and you have to compensate for the white surface. Lighting isn't as good as a hockey game. Frequently, the lighting is spot lights, so knowing stage lighting is important. The programs can be predictable and are generally published before the event so you know when the triple jumps are coming. Lens length is determined by proximity to the surface but again, you want the fastest glass possible. Auto-focus is a good idea for Figure Skating, though some success with follow and zone focusing can be achieved.

Motor sports and Racing Events

These sports are generally fairly easy to photograph. They generally occur during the daytime and you can get away with longer slower lenses. AF isn't quite as important because the action occurs in a very predictable fashion. You can follow or zone focus easily enough. Safety shots are the participants racing past you. The challenge for racing sports is to show motion which will be covered shortly. You don't want your Formula 1 car looking like it is sitting still. Also much more importantly, there is a lot to the game other than the cars or horses running around the track. The pits/paddock afford some of the best shots. Be ready for an accident. They can happen at any time.

The biggest problem with racing sports is the distance from the track. You only have the participants for a brief time on each lap and in the case of the ponies, you only get them for one lap (per race). You will need big lenses in almost all circumstances for the race itself. Your shorter lenses work well for crowd and off track shots.

Freezing Action Shots

So far, we have discussed each event and they types of shots to be taken. Safeties generally are taken at times where the action is minimal, and we don't have to concentrate as much on freezing the action. But what sells, and what the viewers want to see, are people suspended in mid-air. They want to see the ball as flies past the goalkeeper's fingers. To do that, we must freeze the action.

Freezing the action requires fast shutter speeds. Most modern cameras have a top shutter speed of 1/8000th of a second. Except for a speeding bullet, this is about fast enough to

catch anything we are likely to shoot, even an Indy car blasting around the track at 230mph.

But it isn't that simple. Lets first discuss a standard photographic rule of thumb, which is the minimal speed for hand-holding a lens. (*The lens focal lengths here refer to their equivalent on a 35mm camera - most of the DSLRs in the club are of the APS-C sensor and you get a 35mm film equivalent by multiplying the focal length by - usually - 1.5*). The minimal shutter speed for hand holding a lens is 1 divided by the focal length of the lens. Thus a 50mm lens should not be hand held any slower than 1/50th of a second. A 300mm lens should not be hand held at less than 1/300th of a second. If your camera does not have shutter speeds between say 1/250 and 1/500, then you round up. So for a 300mm lens, your minimal hand hold speed may be 1/500th of a second. The more proficient you get, the more likely you are to be able to cheat by one shutter speed. You may also get an extra two stops (maximum) from the camera's or the lens's Vibration Reduction system, meaning that you can add two stops of shutter speed (i.e. Slower) to the theoretical minimum speeds above. A mono-pod is the preferred way for action photographers to gain additional steadiness. It can generally buy you one to two shutter speeds of hand holding. (If using a tripod, you'd switch off the Vibration Reduction - I've never found good advice about whether you should do the same with a Mono-pod - if the advice turns out to be to switch off VR with a mono-pod, those two stops are lost again!).

Giving the illusion of movement.

Many new action photographers worry about freezing action, trying to get the crispest shots possible. Even veteran photographers will try for crisp shots, but they are not afraid to allow some blurring.

As long as most of the body and the face is crisp a little motion in the hands, feet, and projectiles is acceptable and in many cases desired. This is another little cheat in not having that fast of a shutter speed.

Sometimes, we slow the shutter speed down intentionally to amplify the movement. We have all seen shots of runners where the background is a blur their arms and legs are a blur, but their body and head are fairly well focused. Combining panning, slower shutter speeds, and predictable movement and you can capture some very dramatic pictures showing all kinds of movement.

These types of shots require patience, work, and a lot of experimenting. Don't hesitate, when at an event to experiment with different techniques . . . after you get your safeties and your primary shots.

Lighting

Lighting conditions are the single biggest problem for sports photographers. There simply are no good lighting conditions. During the day, under bright sun, there are harsh shadows and it creates shots that have too much contrast. Morning and late afternoon shots are somewhat better if you can get the light behind you, but you still end up with some rough shadow conditions. Overcast skies drop the light level too low for using really long lenses or the shots don't have popping colour

As the sun sets, or if you move indoors, the lighting is generally enough to let the players

see the ball coming at them. No two facilities are lit the same. You will find situations where little league fields are better lit than college fields. You will find that different arenas and stadiums have different colour balance lights. Some facilities will even have bulbs of different colour balance which makes some shots unprintable.

Most modern pro arenas have fairly decent lighting and the colour balance is pretty good. Professional teams need lots of media coverage and after years of complaining, they have created decent lighting for the media to use.

Most indoor sports events either require the resources of Sports Illustrated to mount strobes in the ceiling, which are not distracting to players as a strobe blasting in their face, or require a high ISO. Most indoor sports are shot at ISO 400 with fast (F2.8 or faster) lenses.

Emotion

Shots that lack emotion are ho-hum. They lack energy. They lack story telling ability. If there is no emotion, then there is little desire to view it. Most tight action shots of players will be emotional. Regardless of level, these players, when they are exerting themselves, exhibit emotion. You will, from experience be able to edit out the shots that lack emotion and do not tell the story. But it requires shooting and shooting.

You should also look for emotion from other sources.