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Eye issues are a surprisingly common consequence of head trauma, and understanding why they occur can make a big difference in managing recovery. Head injuries, whether mild or severe, can cause damage to various parts of the body—including your eyes, leading to temporary or lasting vision symptoms. An eye exam is usually necessary to assess visual skills and determine if vision therapy can help. We explore the connection between head injuries and eye problems, the symptoms to look out for, and recovery tips to help you see better. How exactly does a head injury cause eye problems? The answer lies in the close relationship between your brain and your eyes. While your eyes capture visual information, your brain interprets and processes it to form clear images. Injury to the head can disrupt this process in several ways: Direct injury to the visual venters: Specific areas of the brain, like the occipital lobe, are responsible for interpreting visual data, distance and depth perception, color, object and face recognition, and memory. Damage to these areas can lead to significant vision changes. Nerve damage: The optic nerve connects your eyes to your brain, and trauma can cause optic nerve damage and lead to functional impairment of vision. Disrupted eye-brain coordination: Your eyes rely on precise communication with your brain to move, focus, and process images. A head injury can cause a disconnect, leading to vision symptoms. Understanding these mechanisms helps explain why head injuries often result in visual challenges. Head injuries are often associated with visual impairments, but their symptoms can vary depending on the severity and location of the damage. Here are some of the most common eye-related issues people with head injuries experience. Concussions, caused by a blow to the head, frequently result in visual disturbances. This might include blurry vision, double vision, difficulty focusing on objects, difficulty concentrating, and depth perception issues. Many head injury survivors experience increased sensitivity to bright lights. This symptom, known as photophobia, often leads to discomfort or headaches in well-lit environments. Eye movement coordination can be disrupted after a head injury, making it hard to follow moving objects or switch focus between near and far distances. This difficulty can be especially troubling for tasks like reading or driving. Loss of vision in certain parts of your field of view can occur if specific areas of the brain responsible for processing visual information are affected by a head injury. Persistent headaches or discomfort behind the eyes is another common complaint after head trauma. This often results from prolonged attempts to focus or compensate for other vision issues. Recovering from head trauma can be a long road, but taking care of your eyes during this time is essential. Here are some practical tips to help you regain vision clarity. Rest is one of the most important factors in recovering from a head injury. Avoid activities that strain your eyes—like staring at screens for extended periods—when symptoms peak. Vision therapy can be an effective, personalized approach to improving visual function after a head injury. A trained eye professional may guide you through various activities using tools designed to strengthen eye-brain communication. Exercises, like focusing on near and far objects or following a moving target with your eyes, can help improve eye coordination and focus over time. However, always consult your eye doctor before starting exercises at home to make sure they're safe and effective for your condition. If you're struggling with light sensitivity, try wearing blue light-blocking glasses or sunglasses in bright environments. Adjust the brightness settings on your devices and take regular breaks to avoid eye strain. Your eye doctor is an important part of your head injury or concussion team. If you've already seen your eye doctor but your symptoms persist or significantly impact your life, don't ignore them. Visit your eye doctor to monitor your vision and treat vision impairments. They can also help determine when it's safe to return to work, school, or sports. Dealing with vision issues after a head injury can feel overwhelming, but you don't have to navigate recovery by yourself. Treatments and therapies are available, and many people see significant improvements with time and care. If you're struggling with eye problems following a head injury, book an appointment with Total Vision Campbell for custom vision therapy to help you regain essential visual skills. Various eye problems can result from head trauma or concussion. Studies say that vision-related issues may affect up to 82% of concussed patients. Light Sensitivity and Photophobia Photophobia or light sensitivity can be triggered by certain light sources like sunlight and fluorescent lighting. Recent studies suggest that liquid-crystal displays (LCDs), such as computers and smart devices, can be harmful to individuals who had a concussion and are light sensitive. Blurred or Double Vision Diplopia or double vision is a common result of a concussion. It may be caused by damage to the muscles or nerves around the eye. Double or blurred vision after head trauma can also be a sign of a severe neurological disorder, such as migraine-associated vertigo. Moreover, it can also result in poor balance, dizziness, poor balance and eyestrain. If you're experiencing any of these, immediately contact your eye doctor Vision Loss You can experience partial or complete vision loss after a head trauma. Some may experience blind spots in their peripheral vision while others tend to have reduced vision in half of their visual field. It can be caused by a direct eye injury or trauma to the main optic nerve at the back of the eye. Eye Pain After a head injury, patients may feel a stabbing pain or dull ache around the eye. Accommodation spasm can occur due to the trauma that caused the concussion. It's when the muscles surrounding the eye remain contracted for too long. Muscle inflammation and light exposure can lead to eye pain post a mild traumatic brain injury. At Northern Virginia Doctors of Optometry, we're here to help with your eye care needs. You can also count on us for your new prescription eyeglasses and contact lenses. Call us at (703) 467-9080, or fill out our contact form to learn more about our services. We assist patients in Reston, VA, and the surrounding areas. Black spots in vision (or floaters) are the specks, squiggly lines, or cobwebs you may notice in your line of sight. Floaters are clumps of the gel-like substance (vitreous humor) that fill your eye. They are common and usually do not need treatment unless there is an underlying problem with the eye that's causing them. This article covers what it means if you're seeing black spots in your vision. You'll also learn about what causes floaters in your vision, when to worry about them, and how floaters can be treated. Floaters can look slightly different depending on how the vitreous gel in the eye clumps together. You might describe them as: SpotsSquiggly linesCobwebsDark blobsRing-shapedStrands of thread Floaters are sometimes more noticeable when you're looking at a light or bright background and less noticeable in the dark. Usually, floaters move with your vision as your eyes move rather than staying in one spot. A black, fixed spot in your vision could be another condition, like a macular hole. Sometimes, black spots in your vision go away on their own or become less of a problem. In these cases, floaters may not need treatment. Floaters can be a normal part of aging. Even though anybody can get floaters, they're more common in people over the age of 50 as well as in people who have vision problems like nearsightedness. Floaters also happen if the vitreous in the eye begins to shrink, clump together, and form particles. These particles float through the eye into your line of sight and cast shadows on the retina as they do. Many times, these particles will eventually settle, and you will no longer notice them as "floaters" in your vision. Sometimes, people will see flashes of light before they start seeing floaters. Floaters can occur after what is known as a posterior vitreous detachment (PVD). By age 80, more than half of the population has had a posterior vitreous detachment. This eye problem happens when the central part of the vitreous gel starts to liquefy and can no longer support the gel on the edges. When this part gets weak, it detaches from the sides and collapses into the liquified center. This tugs the light-sensing layer at the back of the eye (retina) and can cause you to see flashes of light. In many cases, the posterior vitreous tugs on the vitreous without any problem and detaches from it. However, it can lead to more serious issues such as retinal tears or retinal detachment. You may see flashes if you hit your head. The motion shakes the vitreous fluid and can make you "see stars" for a moment. Seeing flashes of light that look like a jagged lightning bolt can happen if you get a blood vessel spasm in your brain. This usually happens just in one eye and is called an ocular migraine. It may or may not come with a headache. Migraine with aura is a type of ocular migraine. Eye floaters can also be a side effect of medications used to treat eye conditions (like injections for ARMD) or those given after eye surgery. In these cases, leftover bubbles from medication or oils used during surgery can look like floaters. Black spots in your vision that are not floaters are fixed in place. Sometimes, they're called a "blind spot" or scotoma. These spots can be caused by common conditions like: Rare conditions can also cause black spots in your vision including: Fluid buildup behind the retina (central serous chorioretinopathy) Brain lesions (e.g., from multiple sclerosis or a stroke) Detached retina Blood vessel disease of the eye Optic nerve disease or injury Eye cancer In other cases, floaters can be related to having blood in the eye from leaking blood vessels—a problem that can be related to conditions like diabetic retinopathy (which is why people with diabetes should regularly have their eyes checked). People with conditions that cause inflammation and swelling of the middle layer of the eye (uveitis) can also get floaters. If you notice a sudden increase in the number of specks or floaters in your line of sight, you need to see a provider to have your eyes checked. While posterior vitreous detachments can happen without causing lasting problems and may even go unnoticed, they can also happen suddenly and be very serious. Having a lot of new floaters can be a sign of a tear in the retina. If diagnosed quickly, the condition can usually be successfully repaired. However, if not treated, it can lead to retinal detachment, which can cause vision loss if it's not fixed with surgery. You may not need treatment for black spots in your vision. If you do, there are a few options depending on what the cause of the floaters is. A vitrectomy used to be the only treatment for black spots in vision. It is a procedure to take out all of the jelly in the eye and replace it with a clear sterile fluid. This treatment has risks that your surgeon will go over with you, including: Potential for retinal detachment Serious eye infections Appearance of new floaters Retinal tear Clouding of the lens of the eye (cataracts) Because of these risks, some of which can threaten your sight, your surgeon will have to weigh the potential for these issues with the need to remove the floaters. Another treatment with less risk is laser vitreolysis. With this outpatient procedure, floaters are broken up with the aid of a laser, which is aimed through the dilated pupil at the floater. The floaters are either vaporized or broken up into smaller, less noticeable pieces. Keep in mind that not all floaters can be treated with this approach. If the floaters are too close to the retina (which often happens in younger people), the laser technique cannot be used. In deciding whether to treat your floaters with a laser, your surgeon will likely consider whether: Your floater has soft borders that make laser treatment possible.The floater is located in an area where the laser can be safely used.The floater came on recently and was related to posterior vitreous detachment. You cannot always prevent eye floaters, but taking steps to avoid eye injuries (like wearing safety goggles) and taking care of your eye health as you get older (like having regular eye exams) can help. Black spots in your vision are often just annoying and will go away without treatment. When medical care for floaters is needed, your provider might recommend the removal of the gel-like fluid in the eye and the replacement of the fluid. They can also use a laser to vaporize the floaters or break them into smaller pieces. If you have black spots in your vision and do not know why, it's important to see a provider. They can figure out what is causing them and recommend treatment that will help keep your eyes and vision healthy. Home » News and Events » Head Injuries Can Lead to Serious Vision ProblemsPosted by: Florida Eye Microsurgical Institute in Worth Sharing... According to the Centers for Disease Control and Prevention, at least 1.4 million Americans suffer and are treated for a traumatic brain injury every year, a serious event that can create problems with normal brain functioning. Even more people suffer head injuries but don't seek medical attention; luckily, most of these traumatic brain injuries are mild, such as a concussion.Eye and vision problems are fairly common after a brain injury. Some vision problems can be due to trauma to the eye, says Majid Moshirfar, MD, an ophthalmologist at the Moran Eye Center at the University of Utah. But many other vision problems are actually caused by injury to your brain.If you have suffered a head injury — even a mild one — it's important to see a doctor who can make sure that your eyes and brain are still working properly and that there are no vision problems that could show up later.Even mild head injuries, such as whiplash from a minor auto accident, can cause vision problems, Moshirfar says. The symptoms are varied. You may, for instance, have trouble focusing your eyes when switching your gaze between near and far objects. You may see double. Or you may feel nauseous or vomit when you shift your gaze around. After relatively minor trauma, people can also experience headaches or sensitivity to light, and words on a page may appear to move.More serious vision problems can also result from a blow to the head or other head injury. These can include:Retinal detachment. Your retina is a thin layer of tissue lining the inside of the back of your eye. Its role is to help turn the images entering your eye into signals that go to the brain through the optic nerve. "I've seen patients who have a head injury and they bleed into the retina and have retinal detachment in both eyes," Dr. Moshirfar says. "That's a very serious problem requiring surgical intervention." In a retinal detachment, the retina comes loose — an issue that can potentially cause permanent blindness. Doctors may be able to reattach the retina, but it's imperative that you seek treatment quickly.Vitreous hemorrhage. Each of your eyes contain a clear, jellylike substance called the vitreous humor. Light entering your pupil (the black spot in the center of your eye) passes through the vitreous before striking the retina. Head injuries can cause blood vessels in your eye to bleed into the vitreous. Though these injuries can be quite problematic at first, Moshirfar says, most vitreous hemorrhages clear up over time with minimal problems, although some people require medication to speed their recovery and avoid further vision problems.Optic nerve damage. Head injuries also have the potential to cause increased pressure within the skull. This in turn puts pressure on your optic nerves, which carry messages from the eyes to the brain. This pressure can "choke" the optic nerves, cutting off blood circulation. The damage to the nerves can be severe, Moshirfar says. The resulting problems can cause vision loss severe enough to lead to complete blindness.If you've suffered any kind of injury to the head that has resulted in changes in vision, getting prompt treatment is critical. "Patients who have even subtle changes in their vision — such as fluctuation in their vision, double vision, or difficulty focusing at near and distant objects — need to be examined by an eye-care specialist or neurologist," Moshirfar advises.If you've had any kind of head injury and you are having eye symptoms, don't wait. Get in to see a specialist who can provide the right diagnosis and develop a treatment plan that works for you.By Eric Metcalf, MPH | Medically reviewed by Pat F. Bass III, MD, MS, MPH Head injuries can be scary, especially traumatic brain injuries, also known as concussions. Your eyes and vision can also be affected. Your optometrist is in your corner through comprehensive eye exams to help keep your eyes and vision healthy. But can concussions cause eye floaters? It's certainly possible but not necessarily guaranteed. Let's explore what eye floaters are and examine the effects of concussions, including how they relate to your vision and when to see an optometrist.. Eye floaters appear as small lines, spots, and semi-transparent cobwebs in your field of vision. Eye floaters are actually tiny protein particles within the gel inside your eye that become more noticeable as they fall within your line of sight. Floaters move as your eyes move but lag behind your eye movements. Floaters can also sometimes appear with flashes of light, and a sudden onset can signal an eye emergency. Eye floaters are usually a common occurrence as you grow older. However, if you notice a sudden increase in the number and size of floaters or flashes of light in your visual field, it can signal a retinal detachment, and you should contact your optometrist for urgent care. Eye floaters can be an emergency if: You see flashes of lightYou lose your peripheral (side) visionYou develop eye painYou experience blurred vision or loss of vision Floaters can be detected as a part of your comprehensive eye examination, where your optometrist will carefully evaluate your eyes. If you are concerned or unsure about your vision, it's always a good idea to give your eye doctor a call. A concussion is a mild traumatic brain injury that can result from an impact or injury to your head. Concussions can cause noticeable symptoms that include: HeadachesNausea or vomitingConfusionDizzinessDouble vision or blurred vision Symptoms usually depend on both the severity of the injury and the person injured. As a result, symptoms can vary from person to person. It's important to get the right medical attention even if you feel your symptoms are mild, as head injuries should always be taken seriously. Even with a mild concussion, it is important that proper care is taken to avoid furthering the impacts of the damage. Because concussions occur with impacts or injuries to your head and brain, you may experience some visual issues as a result. Eye floaters can appear following a concussion—however, they are not a diagnostic symptom of a concussion. Eye floaters are most commonly caused by the aging process. They occur when small flecks of protein and other matter trapped in the eye fluid get loose because of deterioration or certain injuries and eye diseases. However, trauma from a concussion to the retina can lead to experiencing eye floaters, as this directly affects your visual system. While less common, injuries to the eye and surrounding area can lead to the appearance of more eye floaters due to the eye fluid structure being affected. Regardless, if you notice an increase of floaters in your vision it could be a good time to speak with your eye doctor, and is another important reason why we recommend annual eye exams for patients of all ages. Having regular check ups ensures that we can catch any changes to the health of the eye, and be able to start treatment sooner than later, if necessary. While eye floaters are not a diagnostic symptom of concussions, they can be an unfortunate side effect depending on the trauma or injury suffered. Your eye health is crucial to preserve, so any new eye floaters should be reported to your optometrist regardless of whether you have experienced a traumatic head injury or not.. Book an appointment with our optometrists in North York to get a comprehensive check-up and get any new eye floaters checked out for any further issues. It may be your eyes: Vision Issues After a Concussion? Signs of a Bigger Problem If you or a loved one have recently experienced a traumatic brain injury like a concussion, vision problems may result. Even mild traumatic brain injuries can cause eyesight difficulties. Understanding the types of concussion eye problems you may experience after a head injury can help you recognize them and seek help from an eye care professional. You might have headaches and other visual symptoms after a concussion, but these symptoms don't mean your vision has been permanently impaired. However, there are several post-concussion eye problems that you should watch out for. If they persist, these common symptoms could be signs of a bigger problem. Even a mild traumatic brain injury can damage the nerves or muscles around the eye. This damage can lead to blurred or double vision, in part because your eyes struggle to work together when focusing on nearby objects. You may notice particular difficulty when reading, or you may experience dizziness. You may also have trouble with headaches after a brain injury. This can cause you to be particularly reactive to things like bright sunlight or fluorescent lighting. Using computers or smartphones may prove troublesome and may worsen headaches following a concussion. The same accident that caused your concussion may have also caused eye injuries that result in the loss of some or all of your vision. Damage to the optic nerve can also lead you to experience vision loss. The muscle around the lens of your eye expands and contracts, and you may experience eye pain if that muscle stays contracted too long. This is called an accommodation spasm, and it could occur with prolonged near-vision activities like using hand-held devices.. You may also experience pain related to eye muscle inflammation following your head trauma. Another potential eye problem following a concussion is delayed or slow eye movements. This can lead to an inability to track moving objects (pursuits) or move from viewing one object to another (saccades). You may also be unable to focus while moving your head after a concussion (vestibular ocular reflex or VOR). Experiencing vertigo or feeling uncomfortable in visually busy settings is another problem you may experience following a concussion. This may be because your central nervous system struggles to process complex visual stimuli that it had no problems with before your injury. If you have any of these conditions or a combination of them, it may be a sign that you have a more serious problem, such as Binocular Vision Dysfunction (BVD). If you have sought help for your vision problems following your concussion, but nothing has helped, you may have BVD. An eye care professional who specializes in this condition can get you the treatment you need for your post-concussion vision disorders. Vision is a function of your eyes and your brain working together. Each eye sends images to the brain, and the brain knits them together into one single image. In order for the brain to do this successfully and efficiently, your eyes must be in alignment and send two almost perfectly overlapping pictures to the brain. Misalignments of the eyes, no matter how subtle, can cause eye strain as the muscles struggle to align your vision. Large misalignments are easy to spot, but subtle misalignments are harder to catch. The end result is that your eyes are not working as smoothly or efficiently together as they should. These subtle misalignments can lead to a condition called binocular vision dysfunction. People with BVD struggle to align their eyes to see one clear picture because their eyes are no longer working in tandem. Head injuries such as concussions can cause BVD. The symptoms of BVD are similar to those of other conditions. This is why people with BVD may end up seeing more than one eye doctor to get relief from their symptoms following a concussion, but with little success. You should see a vision specialist if you experience one or more common BVD symptoms, such as: If you have the symptoms of binocular vision dysfunction, you should contact a specialist immediately. At Vision Specialists, we pride ourselves on diagnosing and treating people with BVD, so they finally get the help they need. You can call or visit us or use our contact form. Take our online BVD questionnaire to determine if you or a loved one might have BVD and should seek our help. TAKE THE TEST It may be your eyes Blurred vision in one eye may occur after a head injury. There are several possible causes of blurred vision, some more serious than others. This article explains why you might have blurred vision in one or both eyes after a head injury and how to heal. There are multiple factors that may trigger blurred vision in one eye after a head injury. One of the most common is a condition known as accommodative dysfunction. In normal vision, the eyes can switch their focus from near objects to far, and vice versa. This process is known as "accommodation" and allows objects to look clear when you focus on them. Sometimes, however, this function is affected. For example, most people tend to lose their ability to switch focus in their 40's, and they develop farsightedness or nearsightedness. This may also occur after a head injury. If a head injury damages the eye itself or the nerves responsible for controlling eye muscles, the eye may lose its ability to focus. As a result, blurred vision occurs in one or both eyes. There are other factors that may cause blurred vision after hitting your head, including: Dry eye. A concussion may damage a person's blink response. If the eye becomes too dry, blurred vision may result. Ocular migraines. Migraines are frequent after a head injury. Some migraines are accompanied by vision problems such as blurred vision or flickering lights. Detached retina. After a head injury, the retina may tear away from the back of your eye and lose its blood supply. If that occurs, your vision in one eye will become blurred. Detached retinas may cause permanent vision loss if left untreated. High blood sugar. High blood sugar levels, which are common in diabetes patients, may cause the lens of your eye to swell, which results in blurred vision. Stroke. Finally, sudden blurred vision or vision loss in one eye may be a sign of a stroke occurring in your eye. Since head injury increases a person's risk of stroke, it's important for patients to be aware of this risk factor. Some of these causes are minor, such as dry eye. Others, however, such as a stroke or a detached retina, require immediate treatment. But how can you tell whether sudden blurred vision in one eye is an emergency situation? Below are some guidelines to assist you in making decisions about appropriate medical care. The following signs could indicate a serious eye condition that requires emergency treatment. Sudden eye pain. Eye injury, such as broken blood vessels. Signs of stroke, such as facial drooping, weakness on one side, or slurred speech. Loss of one area of your vision, also known as visual field loss. If you have any of these symptoms, go to the ER for an immediate evaluation. Contact your optometrist as soon as you experience blurred vision in one eye after a head injury. While it may not be an emergency, it is still a good idea to have your eye examined by a professional. The sooner you can receive treatment, the more likely you are to preserve your eye function. Besides blurred vision in one eye, there are several other eye symptoms that often accompany a head injury. These include: Sometimes these issues may make blurred vision worse. Therefore, it's important to address them during treatment as well. For instance, floaters are microscopic fibers within the eye that tend to increase with age. However, if you notice a sudden increase in floaters after your head injury, that could be a sign of retinal detachment. It is crucial to get your eye examined by a doctor as soon as you notice changes in your vision. Treatment for blurred vision in one eye after a head injury will depend on the symptom of the vision problem. For example, if a detached retina is the cause of your sudden blurred vision, doctors may need to operate on your eye to repair the retina. If your blurred vision is caused by accommodative dysfunction, vision therapy exercises may help. Vision therapy strengthens the eye muscles that focus on objects. By strengthening these muscles, you train your eye to switch focus again. This may reduce blurred vision. Click here to learn more about eye exercises for head injury patients » Finally, treating your blurred vision after a head injury may be as simple as using corrective lenses or contacts. Sometimes eye drops may resolve blurred vision. Consult an optometrist as soon as blurred vision occurs. Your optometrist may suggest the most effective treatment options for you as well as determine whether you require surgery or not. Blurred vision in one eye can occur for a variety of reasons, some of them quite serious. If you experience sudden blurred vision in your eye after a head injury, call your doctor right away. It is possible that you have a detached retina, which requires immediate treatment. Even if you do not have a detached retina, an eye doctor can point you towards the best treatment approach to address your blurred vision. Some approaches, such as vision therapy, are noninvasive and may strengthen your eye muscles. Prompt treatment of blurred vision after a head injury is the best way to ensure a positive outcome and preserve your eye function. Good luck! Concussions and blurred vision often go hand-in-hand. Because the visual system includes the eyes, brain and visual pathways, even a mild concussion can result in blurred vision. Let's take a look at the causes, and what treatment steps you can take to relieve this symptom. When a concussion occurs, there are different types of blurred vision that can result. Many of these can be treated through methods including prescription lens, syntonics and vision therapy. Before we detail what steps can be taken to relieve blurry vision, let's examine how functional vision works, and why the functional visual skill affects your ability to focus. Eye Focusing: The Visual Skill Associated With Blurry Vision After a Concussion First, let's define what we mean by functional vision. Functional vision is how your entire visual system -- the eyes, the brain, the visual pathways -- work together to help you interact with your environment. Functional vision includes the visual skills eye movement, eye teaming and eye focusing. In the case of blurry vision after a concussion, the visual skill that's typically affected is eye focusing. Eye focusing encompasses your ability to see an object clearly and to shift focus between objects at different distances. Blurred Vision From a Concussion Occurs in Many Different Ways When the eye focusing visual skill is affected, the blurred vision may occur in many different ways. You may: Have difficulty keeping reading material in focus Experience intermittent or constant blur See the text in a book clearly (in a classroom setting) but have difficulty shifting focus from the book to board and back So what can you do to alleviate the symptoms and restore your visual skills? Head Injury and Blurred Vision: Rest First Before we get to some of the methods developmental optometrists use to alleviate blurry vision, remember that you've just had a head injury. If swelling or inflammation has occurred, you need to let the injury heal. Sometimes the blurred vision will improve as the swelling or inflammation is reduced through the healing process. With less pressure from the swelling, the area in the brain that controls the eye focusing skill may be able to function normally again. If your doctor is telling you to stay home and rest, that will be the first step toward restoring your functional vision. But if you've resumed normal activity and you still are experiencing blurred vision, then it's time to see a developmental optometrist. How Developmental Optometrists Treat Concussion and Blurred Vision Symptoms Developmental optometrists specialize in functional vision. For cases such as vision problems from traumatic head injuries, primary care optometrists will refer patients to a developmental optometrist. The diagnosis and treatment process typically follows these steps: Step 1: Conduct a functional vision test A functional vision test includes more than testing to see if your eyesight is 20/20. A developmental optometrist will test all three of the visual skill areas that make up functional vision. In some cases, all three visual skill areas may be affected, which is why this comprehensive test is required. Step 2: Develop a plan for treatment Based on the functional vision exam results, a treatment plan may include one or all of the following areas: Prescription lens: In some cases, lenses alone can help improve or eliminate the blurry vision that can result from a concussion. In other cases, a combination of lenses and therapy, or therapy alone, will be the preferred treatment. Syntonics: Syntonics involves the use of light therapy to treat functional vision problems. It helps restore balance to the autonomic nervous system, as explained in this article on syntonic phototherapy. In this video, Dr. Kellye Knueppel explains how it works, and how it has improved the visual skills of patients. Vision therapy: Through an individualized program of exercises and activities to improve how you use your vision, you can improve the affected visual skill areas. The length of the vision therapy program will vary depending on the extent to which the person's functional vision is affected. A treatment plan is geared to where the patient is in the recovery phase. Sometimes in the early stages, we need to go very slow -- perhaps starting out with syntonics treatment alone, or simply a lens prescription. It should also be noted that in some cases, the concussion may have caused permanent injury to the area of the brain that controls eye focusing. In these cases, these treatments may not alleviate the blurred vision. However, the treatments may help the patient compensate for the loss by maximizing the efficiency of their other visual skills. Separating Pre-existing Vision Problems From Concussion-induced Problems It should be noted that if you had a functional vision problem before the injury, that issue may become more pronounced after the concussion. In the same respect, we've had patients who had vision therapy and corrected a functional vision problem prior to a concussion. After the head injury, the vision problem returned. We strongly recommend that you have a functional vision exam as soon as possible to establish a baseline for your visual skill areas. In the event that you suffer a concussion, a comparison of your post-concussion functional vision exam to your baseline exam will help us to understand how the concussion has affected your functional vision. Concussion Symptoms With Blurred Vision: How to Seek Out Treatment Before you seek out treatment from a developmental optometrist, first consult with your doctor. We need to know that the swelling has subsided and is not impacting the area responsible for eye focusing. We also have to know if you're ready to undergo treatment. Once you have the green light, seek out a developmental optometrist, who specializes in functional vision problems. Here's a link to find one in your area. Learn more from our website page on vision and concussions. It includes success stories involving patients who have used vision therapy to overcome blurred vision and other symptoms. After a head injury, many factors can contribute to visual symptoms. One primary cause is a disruption in the sensory-motor feedback loop that underlies the visual process. This loop relies on smooth communication between the eyes, the visual processing centers in the brain, and other sensory systems such as the vestibular (balance) and proprioceptive (body position) systems. The research has shown that the brain's ambient visual process is responsible for organizing spatial information, guiding eye movements, and stabilizing what we see. When these functions are disturbed due to trauma, the amplitude in visual evoked potentials (VEP) measured during diagnostic evaluations tends to be reduced, indicating that the binocular cortical pathways are not integrating information effectively. This can result in symptoms like diplopia and blurred vision. Another contributing factor is the strain placed on the focal visual process, which is essential for attention, concentration, and detail discrimination. When the ambient system fails to organize peripheral visual information accurately, the focal process must overcompensate, leading to visual fatigue, difficulties with reading, and an inability to quickly shift focus. Conditions such as convergence insufficiency, accommodative insufficiency, and oculomotor dysfunction have been observed in patients after head injuries, further complicating the overall visual experience. Vision problems after a concussion are common. They are often temporary and include issues such as blurry vision, trouble focusing, and light sensitivity.Share on Pinterest1765299122 Maskot/Getty ImagesA concussion is a mild traumatic brain injury caused by a blow to the head. It can happen to anyone, but is common in athletes, children, and older adults.Concussion symptoms can range from mild to severe and often include symptoms such as a temporary loss of consciousness, headache, nausea, balance issues, and vision problems. Usually, concussion-related symptoms are short lived, but they occasionally cause lasting effects.Read on to learn more about vision problems after concussion and how long they last.About 90% of people with traumatic brain injuries will have visual changes. Not all visual changes happen right after a concussion, and they may take a few days to develop.In most cases, these visual issues will resolve within a few weeks. If you have lingering symptoms, your doctor might recommend additional treatment.Visual symptoms can include:glare or light sensitivitydouble visionreduced eye-tracking abilitytrouble focusingblurred near visionspatial disorientationreduced depth perceptiontrouble with balance and postureloss of eye alignment (binocular vision)difficulty in changing gaze directionHow long vision problems last depends on how severe your concussion was.Vision problems after a concussion are either due to damage in the eyes, muscles surrounding the eyes, or in areas of the brain involved in vision. Your vision problems will typically repair themselves once these areas have time to heal. For most children and adolescents, this usually takes about 4 weeks. Older adults and people with more severe concussions may take longer to heal.In some instances, vision problems and other symptoms after a concussion can continue for several months. Working with a vision specialist may help improve any lasting issues.There is no conclusive at-home test to diagnose a concussion. However, there are certain observations you can make at home to help determine whether or not you need further medical attention.If a concussion is present, you may notice:Dilated pupils: Pupils that are round and larger than normal could indicate a concussion.Uneven pupils: Different sized pupils could indicate a head injury.Oval pupils: Oval-shaped pupils could be a sign of increased intracranial pressure (pressure inside the skull).Slow or no reaction to light: Pupils should get smaller in response to direct light. A concussion could be present if there is a slow reaction, or no reaction at all.Not everyone's eyes will appear different after a concussion, and these changes alone don't diagnose a concussion. However, if you do notice any of these differences in your pupils, it's a good idea to contact a doctor.Other signs to look for include:difficulty readingblurred visioneye fatigueatypical eye movementIn most cases, vision changes after a concussion are temporary. The time it takes your vision to heal after a concussion will vary from person to person. This depends on how severe the injury was, the specific areas of injury, and how much rest you receive following the injury.While permanent vision changes are possible, most vision problems will resolve. For longer lasting issues, working with a specialist may help minimize long-term vision difficulties. Treatment for vision problems after a concussion is related to general concussion treatment. In order to heal following a concussion it's important to:restlimit activities that make symptoms worseavoid overstimulating environmentsavoid digital screenswear sunglasses to reduce light sensitivityvision training with a specialistWhile treatment for vision problems after a concussion is generally supportive in nature, there is emerging evidence that early intervention with a specialist may improve outcomes, especially in children.If you're having vision problems that last longer than a few weeks, it's a good idea to contact your doctor. Also, if your vision problems change significantly or get worse, you should contact your doctor regardless of how long it has been. It might be time to see an eye specialist such as an ophthalmologist, optometrist, or neuro-optometrist.Vision problems after a concussion are common, and include issues such as blurred or double vision, reduced depth perception, and trouble focusing. How long vision problems last after a concussion will depend on the severity of your head injury, your age and overall health, and the area of your brain or visual system that has been injured. If your vision problems last longer than a few weeks, or change significantly, check in with your doctor to see if you should contact an eye specialist. Skip to main content For those who have experienced any type of head trauma that results in a concussion or post-concussion syndrome, you probably are well aware that there can be numerous eye-related problems that result. Eye symptoms are a frequent side effect of a concussion, and studies have found that vision problems may affect 69% to 82% of concussed patients, regardless of age. Among adolescents, nearly half had been clinically diagnosed with more than one eye symptom as result of their concussion.1-2 The most common eye problems include: Blurred or double vision Sensitivity to light and photophobia Partial vision loss Eye or ocular pain Abnormal eye movements Visual motion sensitivity Vertical heterophoria Some of these may directly affect ocular function while others may be part of an impairment with vestibular or neurological systems—which ultimately causes the eye or vision issues. (Think post-concussion headaches which also leads to eye pain and light sensitivity, for example.) Regardless, we explore each of these symptoms in depth below. Blurred or double vision Blurry or double vision (diplopia) are a common complaint after a concussion and may result from damage to the muscles and/or nerves around the eye. This can stem from what is known as convergence insufficiency; in effect, the alignment of the eyes diverge when trying to focus on nearby objects. Double or blurred vision after a head injury might also indicate a more serious neurological disorder, such as migraine with aura or migraine-associated vertigo. In addition, this can result in other physiological or cognitive complications such as: dizziness; poor balance; eyestrain; difficulty reading or concentrating. Light sensitivity and photophobia Photophobia, or sensitivity to light, is also a residual effect of a concussion and can be exacerbated by specific light sources, such as bright sunlight and fluorescent lighting; recent studies have also suggested that LCD screens (such as from computers or smartphone devices) can be particularly harmful for light sensitivity after concussion. The force of the trauma can cause displacement, irritation, or injury in several pain-sensitive brain-related structures.6-7 This may also explain the high prevalence of concussion-related headache disorders as well, which also can contribute to a person's sensory sensitivities. Click here if you have post-concussion light sensitivity ➔ Vision loss Partial or complete loss of vision can also occur post head trauma, often taking on different forms depending on the patient. For instance, he or she might experience blind spots in the periphery or have reduced vision in one half of the visual field. And it can be caused by several factors. In some cases, direct injury to the eye may be visible and indicated by lacerations, bruising, broken blood vessels, and swelling in the area. Although less common, vision loss can also be neurological in origin—represented by trauma to the main optic nerve in the back of the eye or brain dysfunction that affects the visual pathway.3 Eye (ocular) pain Sometimes the eyes just hurt, whether it is a stabbing pain, a dull ache in or around the eye, or even redness, burning and itchiness. The trauma that caused the concussion can sometimes create what is known as an accommodation spasm which can make the eye hurt. This is when one of the muscles around the eye contracts and stays contracted for an extended period of time. Other muscle inflammation as well as light exposure (for a photophobic or inherently light-sensitive patient) can also lead to eye pain after a mild traumatic brain injury. Abnormal eye movements Weakened, delayed or otherwise abnormal eye movements are also frequently present for patients and are particularly noticeable for those with persistent post-concussion syndrome. The ability to track and focus on moving objects (pursuit eye movements) or scan and shift visual focus from one object to another (saccades) are the most prominent deficits observed by researchers. Gaze stability, which refers to the eye's ability to maintain focus while the head is moving, can also be brought on by head trauma.4 There are many experts who suggest that these issues are some of the earliest diagnostic markers for post-concussion syndrome or a more severe traumatic brain injury. Unfortunately, ocular issues have been associated with worsening outcomes (like higher symptom burden and impaired daily living) for some post-concussion patients.5 Visual motion sensitivity Concussed patients often report that they feel disoriented or uncomfortable and/or have other symptoms (e.g. vertigo) triggered by busy or disorienting environments. This is specifically referred to as visual motion sensitivity and is thought to be caused by dysfunction of the central nervous system that limits the patient's ability to process complex external stimuli.5 Vertical heterophoria Vertical heterophoria occurs when the eyes are misaligned vertically, meaning one eye is usually higher than the other. The eyes will try to compensate which can bring about strain or fatigue in the eye muscles. Vertical heterophoria can also make the patient see double, feel dizzy, or experience headaches or eye pain. Although it is unclear if mild traumatic brain injuries directly lead to it, experts believe it can be made worse by a head injury. Tips for Concussion Recovery ➔ Related reading Light Sensitivity and Dizziness Post-Concussion Syndrome and Light Sensitivity Post-Concussion Headaches

References: 1 Gallaway M, Scheiman M, Mitchell GL. Vision Therapy for Post-Concussion Vision Disorders. Optom Vis Sci. 2017 Jan;94(1):68-73. doi: 10.1097/OPX.0000000000000935. 2 Master CL, Scheiman M, Gallaway M, Goodman A, Robinson RL, Master SR, Grady MF. Vision Diagnoses Are Common After Concussion in Adolescents. Clin Pediatr (Phila). 2016 Mar;55(3):260-7. doi: 10.1177/0009922815594367. Epub 2015 Jul 7. 3 Atkins EJ, Newman NJ, Biousse V. Post-Traumatic Visual Loss. Reviews in neurological diseases. 2008;5(2):73-81. 4 Broglio SP, Collins MW, Williams RM, Mucha A, Kontos A. Current and emerging rehabilitation for concussion: A review of the evidence. Clinics in sports medicine. 2015;34(2):213-231. doi:10.1016/j.csm.2014.12.005. 5 Heitger MH, Jones RD, Macleod AD, Snell DL, Frampton CM, Anderson TJ. Impaired eye movements in post-concussion syndrome indicate suboptimal brain function beyond the influence of depression, malingering or intellectual ability. Brain. 2009 Oct;132(Pt 10):2850-70. doi: 10.1093/brain/awp181. Epub 2009 Jul 16. 6 The Impact of LCD Screens on Post-Concussion Syndrome. 1 Aug 2017. Retrieved from www.theraspecs.com/blog/lcd-screens-post-concussion-syndrome. 7 Digre KB, Brennan KC. Shedding Light on Photophobia. Journal of neuro-ophthalmology : the official journal of the North American Neuro-Ophthalmology Society. 2012;32(1):68-81. doi:10.1097/WNO.0b013e3182474548. Find the glasses that fit your needs and lifestyle, and stay protected from screens, fluorescents, unwanted blue light, sunlight, flashing lights, and more. Shop Now People often experience blurry vision after brain trauma, especially from a concussion, a type of traumatic brain injury (TBI). In fact, about 90% of patients with a traumatic brain injury will experience some visual symptoms that can negatively affect their quality of life. Fortunately, neuro-optometric therapy can offer relief to many patients with severe head injuries. If you've sustained a brain injury, contact Visual Symptoms Treatment Center in Arlington Heights to find out how we can help restore your vision and quality of life. How Can Hitting Your Head Affect Your Vision? While some minor head injuries result in nothing more than a bump or bruise, in more serious head injuries, known as traumatic brain injuries (TBIs), the brain impacts against the hard skull, often with powerful force. This impact can damage fragile nerves and blood vessels in the brain. Since 70% of our brain is responsible for visual processing, it's no surprise that a TBI can cause blurred vision and