ORGANIZATION NEWS

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Vision Problems After Traumatic Brain Injury

What is vision and why is it important?
Vision helps the brain make sense of what we see. It also helps with thinking and moving. TBI can damage parts of the brain involved in visual processing, which can affect important aspects of everyday living.

What you need to know
- Your vision is important for many aspects of life.
- Traumatic brain injury (TBI) can cause problems with your vision.
- Treatment can either fix the problem completely, improve your vision, or help you better manage the problem.

How are vision problems found after TBI?
Many members of your care team can help find vision problems, including the following:
- Eye doctors, such as optometrists and ophthalmologists
- Therapists or other rehabilitation clinicians
- Specialists, such as neuro-optometrists and neuro-ophthalmologists

What are common types of vision problems after TBI?
Some of the most common types of vision problems include the following:
- Blurred vision, especially with seeing up close
- Double vision
- Decreased peripheral vision
- Complete loss of vision in one or both eyes

How can these vision problems affect my day-to-day life?
Many of the visual problems after TBI can make it more difficult for you to read or do activities up close. For example,
- Close objects may look blurrier some or all the time.
- It may take longer for you to focus when looking up from reading.
- Printed letters or numbers and other objects may look as if they are moving.
- It may be difficult to read a computer screen.

In some kinds of environments you may also feel the following:
- Irritable in places with a lot of patterns or motion
- Bothered by light or glare

What are the common causes of vision problems after TBI?
- There may be problems with eye movements when scanning stationary objects. You may also have difficulty following a moving target.
- The eyes may not work together properly as a team.
- There may be a weakness or imbalance in the muscles that move the eyes.
- There may be a decrease in vision above, below, or out to the sides.
- Some medications can affect eye focusing. Others can make the eyes feel dry.

What kinds of treatment are available?
Sometimes treatment may involve surgery and/or vision rehabilitation therapy, including therapeutic eye exercises. Compensatory devices or strategies may be used to help you make up for reduced or lost eyesight.

What kinds of optical devices may help me manage vision problems?
Some options include the following:
- Corrective eyeglasses or bifocals may help you to see more clearly near and far.
- Specialized glasses such as prism glasses may help with double vision.
- Patching may help with double vision.

What other types of devices and strategies may help me manage vision problems?
- Take breaks often when reading, watching television, or using a computer or other electronic devices.
• Increase contrast, such as by using a dark-colored cutting board instead of a white one to cut an onion.
• Avoid bothersome light sources such as fluorescent lights.
• Reduce glare by wearing tinted sunglasses and covering shiny surfaces that reflect light.
• Avoid visual overload by cutting down on clutter in your home and at work.
• For those with loss of functional vision, devices such as talking timers, alarm clocks, microwaves, and thermometers; tactile dots; screen-reading software for computers; talking books; various mobile phone apps; and mobility canes may be helpful. Learning Braille may also be helpful.

References

Source
Our health information content is based on research evidence whenever available and represents the consensus of expert opinion of the Traumatic Brain Injury Model Systems.

Authorship
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Disclaimer
This information is not meant to replace the advice of a medical professional. You should consult your health care provider regarding specific medical concerns or treatment. The contents of this factsheet were developed under a grant from the U.S. Department of Education, National Institute on Disability and Rehabilitation Research (grant no. H133A110004). However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the federal government.

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