WANT TO ENHANCE YOUR SPORTS VISION?

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What do all of these ATHLETES have in common?

"IF YOU HAVE A BODY, YOU ARE AN ATHLETE."

- Bill Bowerman, Co-founder of Nike

SPORTS VISION TRAINING

Evaluation, treatment, management care, and consultation designed to protect, correct, and enhance vision for athletes of all ages

Sports vision training is designed to help achieve peak athletic performance

The Role of Vision in Sports

- Vision is our dominant sense
- The eyes lead the body
- Vision is key in most sports
- Visual demands vary by sport
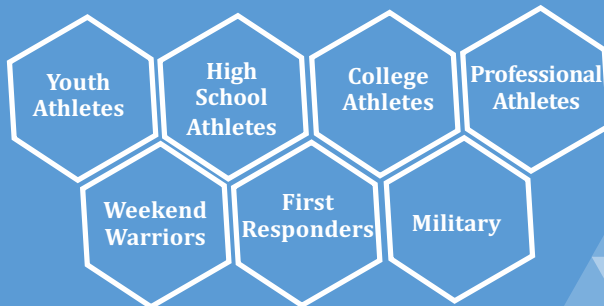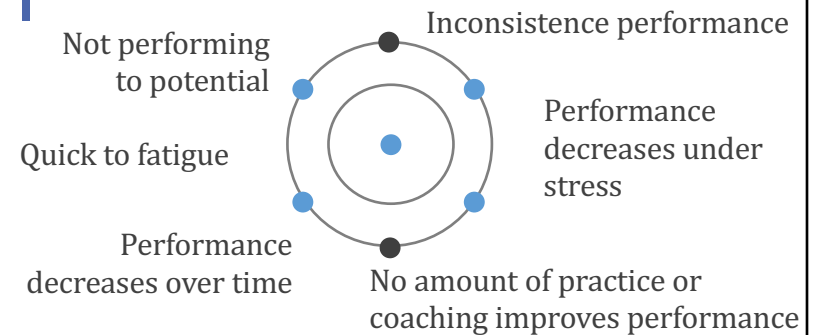- Each athlete has a unique visual system

The EYES LEAD the BODY

VISION is MOTOR

Who can benefit?

- Youth Athletes
- High School Athletes
- College Athletes
- Professional Athletes
- Weekend Warriors
- First Responders
- Military

Signs of a Sports Vision Problem

- Not performing to potential
- Inconsistence performance
- Quick to fatigue
- Performance decreases under stress
- Performance decreases over time
- No amount of practice or coaching improves performance

Normal visual ability is *NOT* enough for SUPERIOR ATHLETIC performance
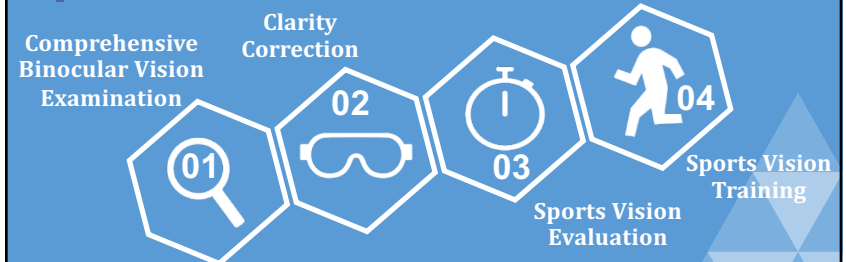
Superior size, strength, speed, agility cannot make up for inefficient processing of the information as to "where" and "when"
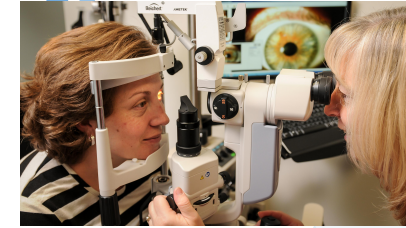
Success in Sports Require

4. SUPERIOR VISUAL SKILLS

3. DRIVEN ATHLETE

2. EXCELLENT MECHANICS

1. SUPERIOR ATHLETIC SKILLS

Sports Vision Training Process

Comprehensive Binocular Vision Examination

Clarity Correction

01

02

03

04

Sports Vision Evaluation

Sports Vision Training

There is a **Strong Need**

	Junior Olympics	High School	College/ Olympics
Never had an eye exam	39.7%	36.2%	32.0%
Less than 20/20 in each eye	27.0%	20.0%	24.0%
Reporting visual symptoms	34.5%	31.0%	20.1%
Reduced depth perception	32.0%	20.0%	18.5%
Inaccurate eye movements	12.0%	10.5%	10.1%

1 Comprehensive **Binocular** Eye Examination

- Visual acuity
- Contrast sensitivity
- Eye health
- Refraction (prescription check)
- Eye movement skills
  - Pursuits, saccades
- Stereopsis (speed, distance)
- Eye teaming (distance, flexibility)
- Eye focusing

MORE THAN **15 VISUAL SKILLS** NEEDED FOR SPORTS (& LEARNING)

Eye Movement Control

Simultaneous Focus at Far

Sustaining Focus at Far

Depth Awareness

Visual Perception

Visual - Motor

Peripheral Vision

Central Vision (Visual Acuity)

Simultaneous Alignment at Far

Simultaneous Alignment at Near

Sustaining Focus at Near

Simultaneous Focus at Near
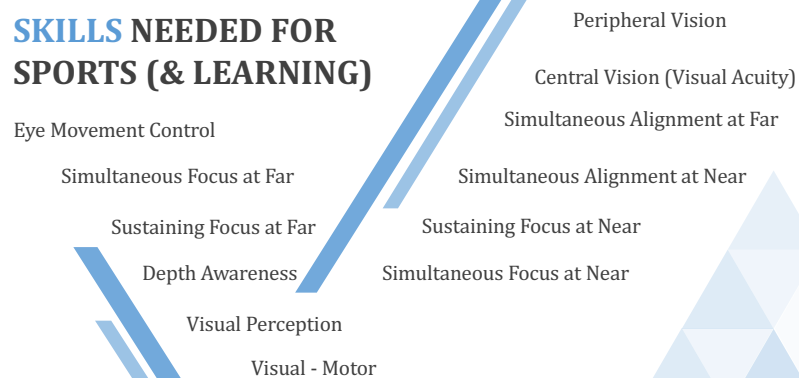
#2 Clarity Correction

- Prescribing for specific distances
- Timing of prescription

- Contact lenses
- Glasses
- Refractive surgery

- Interchangeable lenses
- Tinted lenses

Glasses:
Safety/Protection

- Sports goggles and frames – ASTM safety standards
- NO street glasses during sports activities
- Polycarbonate or high-impact resistant lenses are a must

Glasses:
Tinted Lenses

Golf:
- Grey, Grey-Green
- Photochromic

Snow Sports:
- Amber (blocks blue light)
- Rose
- Polarized for brightness

Tennis:
- Yellow (enhances contrast between court and yellow ball)

Swimming:
- Tint or Mirrored for Glare

Motor Sports:
- Yellow or Orange

#3 Sports Specific Vision Evaluation

Sports Specific Vision Evaluation

- Eye-hand-body coordination
- Testing in specific sport gazes/position gazes
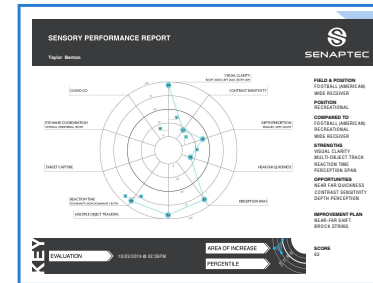- 3D TV (VTS4)
- Fitlight
- Senaptec
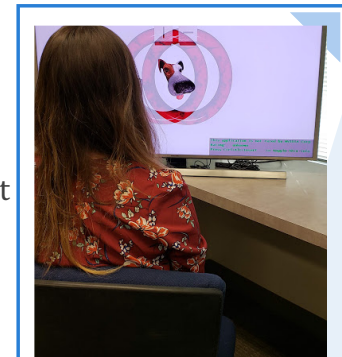
Evaluation: SENAPTEC

- Evaluates 7 visual skills:
  – Visual clarity
  – Contrast sensitivity
  – Depth Perception
  – Near/far quickness
  – Reaction time
  – Perception span
  – Multiple object tracking
- Objective data collection, analysis
- Instant Reporting
- Cloud-based analytics

Test Results: SENAPTEC

#4 Sports Vision Training: Activities/Procedures

Cognitive Awareness — Visualization
Timing — Different Fields of Gaze
Increase/Decrease Demand — Central/Peripheral Integration
Movement/Spatial — Balance/Posture

SENAPTEC Strobes***

- Reaction time
- Attention/concentration
- Anticipation timing
- Peripheral vision
- Multiple object tracking
- Eye-hand coordination

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

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MARSDEN Ball

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

Sanet Vision Integrator (SVI)

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

FITLIGHT

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

FITLIGHT & OPTICS TRAINER & SVI

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

3D TV (VTS4)

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More Activities

SPORTS VISION TRIANING ACTIVITY VIDEO EXAMPLE

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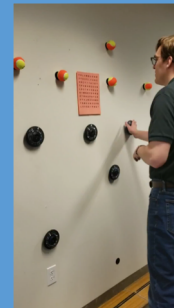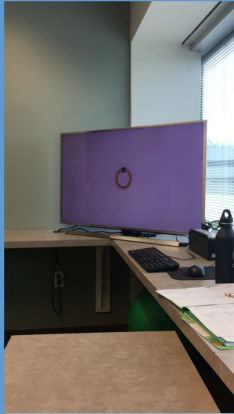
Visualization

Dr.Lynn Hellerstein
VISION VISIONARY
SEE IT! SAY IT! DO IT!

Vision Tip of the Day

It's never too late to start visualizing!

Practice DAILY—visualizing at home or at your sports activity.

✔ Visualize using lots of detail: color, size, shape, form. The more detail, the more real the experience seems (See It).

✔ Include other sensory systems, especially hearing and touching/feeling—even the smell of the surroundings.

✔ Include body movement and motion (running, walking, jumping).

✔ Go through specific action sequences.

✔ Envision alternatives—if you falter, how do you re-cover?

From the book *50 Tips to Improve your Sports Performance*

www.lynnhellerstein.com

"One of the most important ways to separate yourself from others is your ability to utilize visualization techniques.
- Kevin Eastman, Assistant Coach, Boston Celtics

Sports Vision Training Should Include:

Increased/Decreased Demand

Timing

Balance/Posture

Central/Peripheral Awareness

Different Fields of Gaze

Movement/Spatial Awareness

Cognitive Load
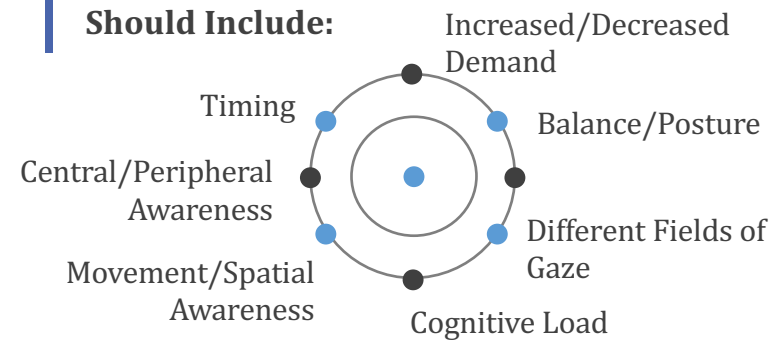
General Hierarchy of
Sports Vision Training

LOAD
Load activities to integrate all skills

VISUALIZATION
Enhance visual/mental planning skills and visual memory

BINOCULARITY
Improve stereo, focusing, vergences

CENTRAL/PERIPHERAL SKILLS
Enhance Central (oculomotor)l/Peripheral awareness skills

RELATE
Relate training protocol to the needs/goals of the athlete (they **need** to know the WHY)

CLARITY
Review optimized Visual Acuity/Contrast sensitivity

LOAD
VISUALIZE
BINOCULAR   C/P
RELATE
CLARITY

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Why does it work?

"To change the wiring in one skill, you must engage in some activity that is unfamiliar, novel to you but related to that skill, because simply repeating the same activity only maintains already established connections."

- John Ratey MD, *The User's Guide to the Brain*

Sports Vision Research

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THANK YOU FOR ATTENDING!

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BE SURE TO JOIN OUR MAILING LIST AND ATTEND OUR FUTURE FREE EVENTS!
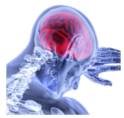
CONCUSSION:
HOW VISION IS IMPACTED
NOVEMBER 17, 2020

VISUALIZATION:
VISION BEYOND SIGHT
JANUARY 2021