The (E)XTREME Sports Vision Practice

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Fred Edmunds, OD, FAAO

Overview

- Sports vision – what is it?
- Vision & sport
- The sports vision only practice
  - Establishing a clinic
  - Visual performance evaluation
  - Performance vision training
  - Marketing & promotion of the SV practice

- Awareness & education

SPORTS VISION – what is it?

- ‘Vision’ – more than 20/20
- Sports Vision (AKA, Performance Vision) is a sub-discipline of eye care that seeks to optimize how the eyes work together as well as with the body during competition
- Strength, agility and conditioning for the eyes

“Sports vision is on the verge of becoming one of the most critical skills in a young player’s development.”

Frank Fultz
Strength and conditioning coach, Atlanta Braves Baseball

Vision vs. ‘VISION’

- Current paradigm
  - Perfect vision – 20/20 (VA only!)
- Redefine ‘Vision’
  - Eyes working together
  - Eyes working with body
  - Includes comprehensive visual skill set
    - Contrast sensitivity
    - Dynamic visual acuity
    - Peripheral awareness
    - Eye-hand/body/foot coordination
    - Etc., etc.

Hierarchy of Function

- Imagine a pyramid, where a base is used upon which to build higher levels of function
- A strong base allows for strong upper levels
- Basic visual function can be divided into Visual Acuity/Contrast Sensitivity and Stereo Acuity
- All other functions will suffer if these are not maximized

Elements of Sports Vision

- Contact lenses / refractive surgery
- Performance Vision training (vision enhancement)
- Eye protection: physical & photo
- Education and awareness
Vision and Sport

- Unique visual demands by sport
- Critical visual skills differ by sport

Ex: Critical Visual Skills in Baseball

- Visual acuity (static)
- Dynamic visual acuity
- Peripheral awareness
- Contrast sensitivity
- Eye-hand/foot/body speed of reaction & response
- Eye-hand/foot/body coordination
- Accommodative-vergence facility
- Binocular function (stereopsis)
- Anticipation timing
- Visualization

Opportunity for optometry?

- Roughly 90 million Americans (35%), across all age groups, avidly participate in some sort of sport
- Another 84 million participate in a sport occasionally
  - Sporting Goods Manufacturing Association (SGMA).

Optometric Trends in Sports Vision

Key Findings:
- 95% of optometrists feel there is potential for growth in the area of sports vision
- Optometrists recommend CL’s over spectacles for use in athletic activities
- Vision consultants are more commonly providing services to NCAA D-I/A athletic teams as compared to NCAA D-III athletic teams (80% vs. 26%)
XTREMESIGHT Performance Clinics

- Stand-alone sports vision clinic
- Two physical locations
  - Professional building
  - Multi-sport facility
- XTREMESIGHT Mobile Performance Clinic (XMPC)

Clinic Set-up: Location

- Internal
  - Within or adjoining the practice
- External
  - Sport venue
  - On campus
  - Health club
  - Stand-alone

Sports Vision Services offered

- Eye exams?
- Vision correction
  - Protective eyewear
  - Contact lens fitting
  - Refractive surgery co-management
- Visual performance evaluation
  - Visual performance screening
- Performance vision training
- Team consultation

Patients vs Clients

Athletes don’t consider themselves ‘patients’

Patients are sick!

The Visual Performance Evaluation

Visual Performance Evaluation

- Comprehensive evaluation of critical visual skills
  - Based loosely on PSVPP protocol
- Compare results against normative database in particular sport, by age and competition level (where available)
- Analyze results and identify areas for improvement and/or enhancement
Visual Performance History
- Prev eye exam
- Correction
  - CL’s
  - Specs
- Vision training
- Performance on field of play
- Visualization
- Imp of vision in sport

Visual Performance Evaluation (VPE)
- Objective refraction
- Visual acuity
- Contrast sensitivity
- Stereopsis
- Accommodative vergence facility
- Peripheral awareness
- Eye-hand coordination
- Eye-body coordination
- Reaction time (eye-hand)
- Dynamic visual acuity
- Anticipation timing

Performance Vision Training
- Vision training programs designed to enhance critical visual skills, i.e.,
  - anticipation timing,
  - eye pursuits,
  - dynamic visual acuity,
  - eye-hand coordination,
  - reaction time, etc.
- Position-specific field drills can be incorporated for functional vision training
- Training programs may be customized to individual athletes

Additional In-office PVT protocols
- Flipper gibberish (+/- flippers)
- Haynes charts
- Vectograms
- Tranaglyphs
- Yoked prisms
- Strobe light
Self-Driven Exercises

XTREMESIGHT Tool Kit
- Dyna Ball
- Dyna Beads
- Xtreme Bounce-Back Ball
- Shifting Around charts
- Stick ‘n Straw
- Lifesaver cards

Dyna Ball
DVA, pursuits, A/V facility, visual concentration

Visual Performance Final Report
- At-a-glance (web chart) comparison: initial vs. conclusion
- Feedback re: progress
- Recommendations re: continued progress

Sports Vision Awareness & Education

Performance Vision Field Days
- Provide screening during sporting, community events
- Use fun draw or contest to create interest

Awareness & Education
- Getting the word out – NETWORKING
  - ECP’s
  - Physical / occupational trainers
  - Coaches / trainers
- Taking SV on the road
AOA SVS Tools
- Sports Vision Guidebook Series
- Newsletter
- Sports vision bibliography
- New brochure
- Eye Emergency Kit

Intra-professional Referral
- Make it easy to refer
- Printed sheets w/:
  - Relevant Sx/Hx
  - Reason for referral
  - Results of ref doc’s examination
  - Permission to share patient information

Hierarchy of Practice
- Optimize visual acuity / contrast sensitivity
  - More (-), CL’s, daily dispos
- Ensure adequate binocularity / stereo
  - Binoc balance
  - CL’s for aniso
- Simple exercises
- Home computer-based trg prog’s
- Establish comprehensive SV practice
- Go mobile – take it to the field

Contact information
Dr. Fred Edmunds
585-880-4818
drfred@xtremesight.com
www.xtremesight.com