

Barrow Brainbook: Concussion Advocacy in Action



Javier Cárdenas, MD
Barrow Neurological Institute
St. Joseph's Hospital and Medical Center
javier.cardenas@dignityhealth.org

Disclosure

- NFL Unaffiliated Neurotrauma Consultant
- Vice chair, NFL Head Neck & Spine Committee
- Member, NCAA Concussion Safety Advisory Group
- Chair, Arizona Interscholastic Association Sports Medical Advisory Committee
- Member, NFHS Sports Medical Advisory Committee
- Creator, Barrow Brainbook

Advocacy in Action

- Identify a problem
- Propose a solution
- Design a plan to execute your solution
- Collaborate
- Collaborate
- Collaborate





- 17 year old male
- Kingman HS Senior
- "Dinged" 3 weeks prior
- October 26
- Hard hit
- 2 more plays
- Evaluated on sideline
- 20 minute seizure
- Air lifted to Barrow







District
of Columbia

Advocacy in Action

- Identify a problem - concussion in high school athletes
- Propose a solution - education



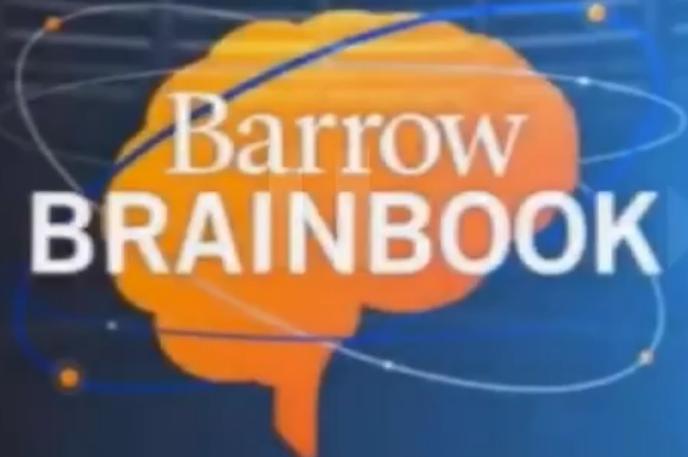
Education Partners



Barrow Brainbook preview

Barrow
Neurological Institute

 Dignity Health



Barrow
BRAINBOOK

0:02

1/21

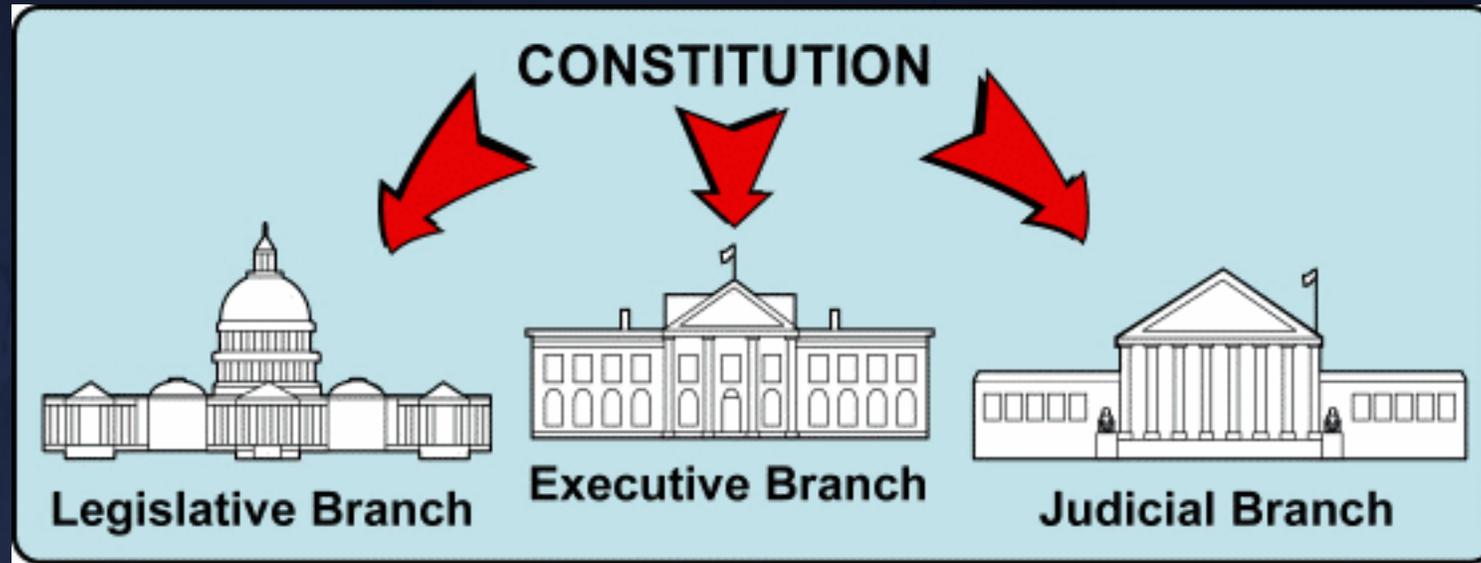
BACK

NEXT

Advocacy in Action

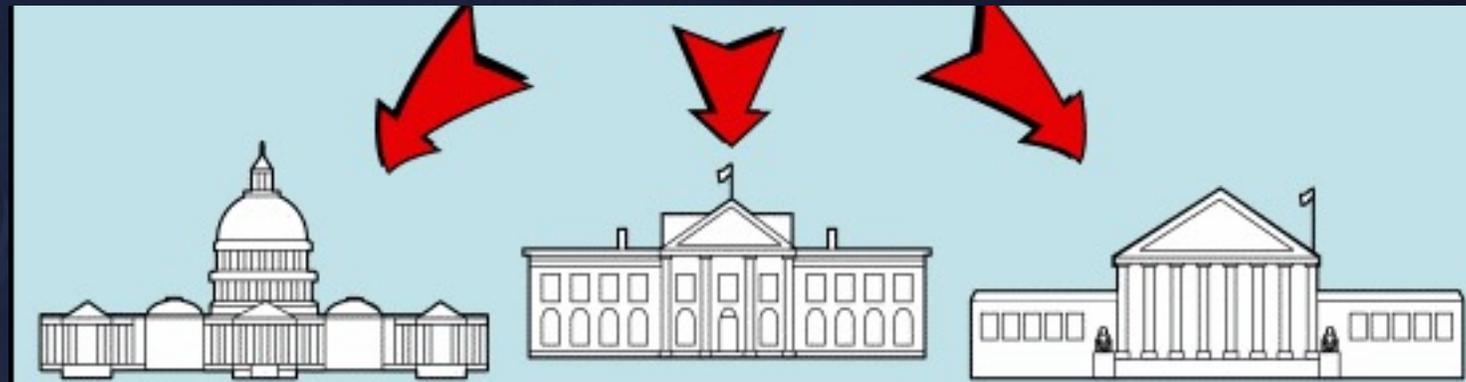
- Identify a problem - concussion in youth
- Propose a solution - education
- Design a plan to execute your solution

Outreach



Outreach

Concussion

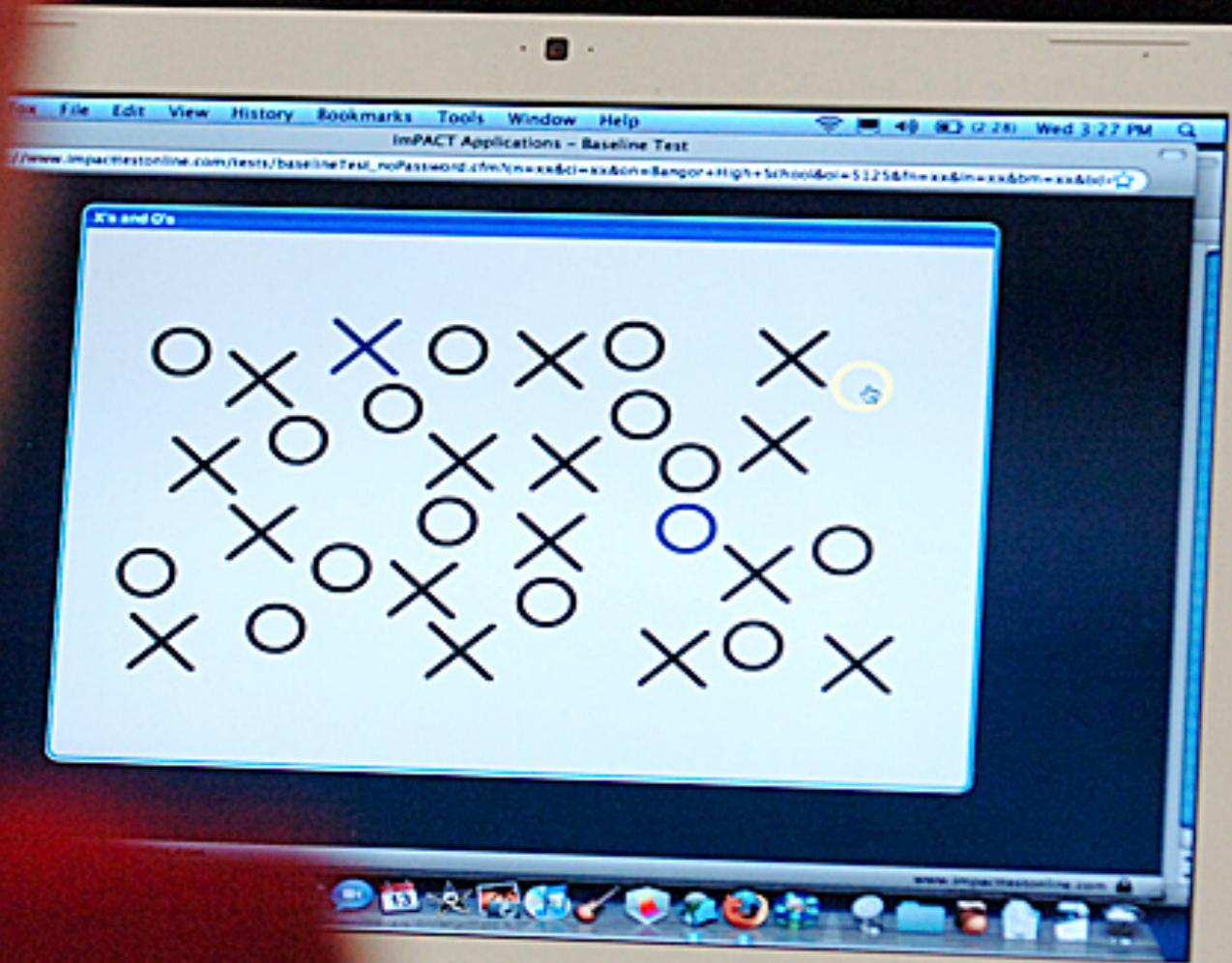


Policy

Education

Resources

Baseline Testing







PLAYOFF

NATIONAL CHAMPIONSHIP ARIZONA 2016

BAMA 21 4TH 13:07





Barrow Concussion Network

Get Started / Log In

Meet Our Doctors

Meet our doctors

BARROW
Neurological Institute

Concussion &
Brain Injury Center



Home button.

Athletic Trainer Dashboard

Welcome Test Athletic Trainer.

[Profile](#) [Log out](#)

Cases

Cases being worked,
and current status of
case.

Unsubmitted 3

Submitted 1

Case Completed 7

Follow Up 0

Action Required

Conversations for
cases that have been
closed or you need
additional information

Conversations 0

Refresh

Add a Case

1

1 of 1

Man Yellow Hat - Concussion

Patient Name: **Man Yellow Hat**
Case: **Concussion**
Site: **Hamilton High School**
Provider: **Javier Cardenas**
Athletic Trainer: **Test Athletic Trainer**

Created: **Jul 31**
[View details](#)

1 of 1

Cases for the status currently selected
(Submitted).



Cases	
Unsubmitted	3
Submitted	1
Case Completed	7
Follow Up	0
Action Required	
Conversations	0

Injury Details and Symptoms

For: Jane Polywog

Please specify the sport where this injury occurred.

basketball

Please specify a date for this injury.

2018-08-02

Please specify the mechanism for how this injury occurred.

Contact with object Contact with Person Non Contact

Please describe the injury and athlete's current state.

14 y/o female basketball player was hit in the head by a passed basketball during warm-up on 1/19/18. Pt c/o moderate sx at time of injury, stated had head ache/nausea due to menstrual cycle. Parent notified, instructed to observe sx over the weekend. 1/22/18 pt reports continued sx; began protocol. Counselor, counseling secretary, teachers, parents, coach aware of injury. Pt continued to report sx; referred to PCP. Seen 2/1/18 cleared for participation with dx of post-traumatic headaches. No return of sx with ADL,

3955 characters remaining

Was the patient oriented at the time of injury?

Yes No

Did the patient suffer any loss of consciousness?

Yes No

Does patient have any balance or motor incoordination

Yes No

Does the patient have any loss of memory?

Yes No

Provide any previous history of concussions.

No previous history.

480 characters remaining

Have they returned to classroom?

Yes No

Completed RTP?

Light Aerobic Exercise Sport-specific exercise Non-contact training Full practice None

Next



ImPACT® Clinical Report

Exam Type	Baseline	Post-Injury 1	Post-Injury 2	Post-Injury 4	
Date Tested	09/12/2013	09/27/2013	09/30/2013	11/20/2013	
Last Concussion	06/14/2008	09/25/2013	09/25/2013	09/18/2013	
Exam Language	English	English	English	English	
Test Version	2.1	2.1	2.1	2.1	

Composite Scores	Percentile scores if available are listed in small type.								
Memory composite (verbal)	78	22%	55	<1%	68	4%	81	32%	
Memory composite (visual)	91	93%	47	4%	53	12%	63	21%	
Visual motor speed composite	36.23	31%	29.73	2%	30.88	7%	41.13	55%	
Reaction time composite	0.48	92%	0.72	5%	0.65	12%	0.51	80%	
Impulse control composite	13		23		13		13		
Total Symptom Score	1		49		52		0		

Cognitive Efficiency Index: 0.43 0.26 0.32 0.3

The **Cognitive efficiency Index** measures the interaction between accuracy (percentage correct) and speed (reaction time) in seconds on the Symbol Match test. This score was not developed to make return to play decisions but can be helpful in determining the extent to which the athlete tried to work very fast on symbol match (decreasing accuracy) or attempted to improve their accuracy by taking a more deliberate and slow approach (jeopardizing speed). The range of scores is from approximately zero to approximately .70 with a mean of .34. A higher score indicates that the athlete did well in both the speed and memory domains on the symbol match test. A low score (below .20) means that they performed poorly on both the speed and accuracy component. If this score

Scores in **bold RED** type exceed the Reliable Change Index (RCI) when compared to the baseline score. However, scores that do not exceed to RCI index may still be clinically significant. Percentile scores if available are listed in small type.

Results, other PDF files, images and videos directly from cell phone or tablet and be uploaded.

Cases

Unsubmitted 3

Submitted 2

Case Completed 7

Follow Up 0

Action Required

Conversations 0

The new case has been submitted and will be assigned to a provider. You will be notified via email and text when a response has been provided or additional follow-up is required to finish the case.

Refresh

Add a Case

1 of 1

Jane Polywog - Concussion

Patient Name: Jane Polywog
Case: Concussion
Site: Desert Ridge High School
Athletic Trainer: Test Athletic Trainer

Created: Aug 6
[View details](#)

Man Yellow Hat - Concussion

Patient Name: Man Yellow Hat
Case: Concussion
Site: Hamilton High School
Provider: Javier Cardenas
Athletic Trainer: Test Athletic Trainer

Created: Jul 31
[View details](#)

1 of 1

- 🏠 Cases
- 🕒 Unsubmitted 3
- 🔔 Submitted 1
- 🔔 Case Completed 8
- 📈 Follow Up 0
- 🏠 Action Required
- ⚡ Conversations 0

Once an opinion is provided select the opinion from "Provided Opinions" and it will open for review.

Back

Back

[Click here to print or save](#)

< > + 100% -

Page: / 2

Barrow Neurological Institute

Barrow Concussion Network

Patient Name : Jane Polywog
 Patient Gender : F
 Patient Date of Birth : 1/1/1997
 Athletic Trainer : Test Athletic Trainer

Concussion Opinion, completed by: Javier Cardenas

Dear Jane,

Thank you for contacting the Barrow Concussion Network. I have had an opportunity to review your case.

Return to Play : Return to Play - Full practice
Return to School : Return to school without accomodations
Diagnosis : Concussion
Summary : Young female with mild traumatic brain injury as the result of a sport related concussion on 1/19/2018. She is currently asymptomatic at rest and with activity and is performing well in school. Eye hand coordination is within normal limits per evaluator. She is Computerized cognitive testing (ImPACT) performed on 2/7/2018 demonstrates performance that is at baseline when compared to 11/07/2017 with the exception of reaction time, which is slightly slower.
 Recommendation: Continue return to play without restrictions. May participate in all sports, including track and field activities.

Thank you for your interest in the Barrow Concussion Network. We look forward to assisting you in the future.
 Sincerely





Barrow Concussion Network Timeline



Baseline



Post-injury



Injury

Barrow
Concussion
Consultation

BARROW
BRAINBOOK



BARROW
CONCUSSION NETWORK



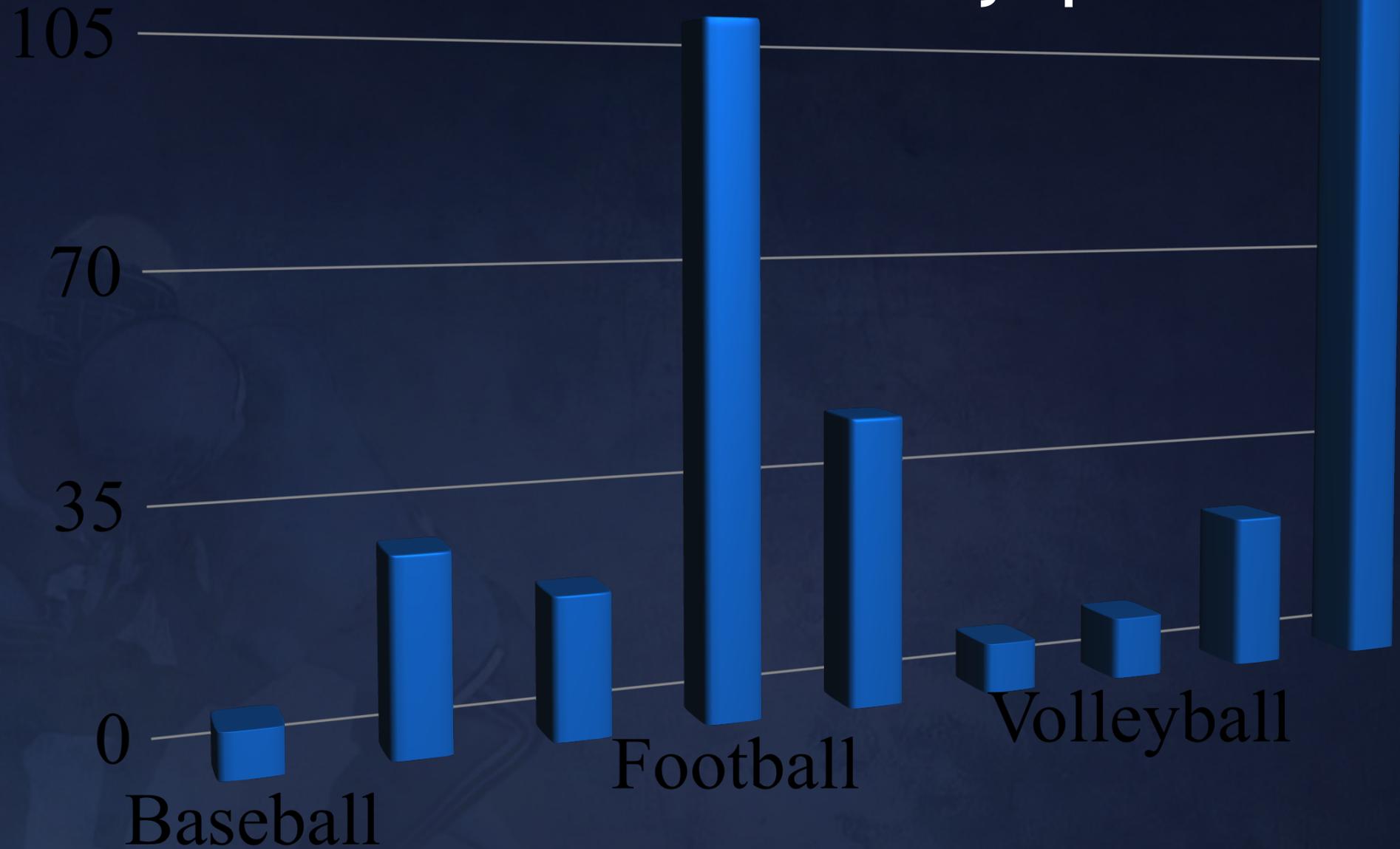
Design:

- 2013-2016
- Concussion Education
- Licenses for computerized cognitive testing and computerized balance testing
- Software based telemedicine
- Offered to all Arizona high school athletic trainers

Methods:

- Retrospective analysis of 352 unique concussion consultations.

BCN Consultations by Sport

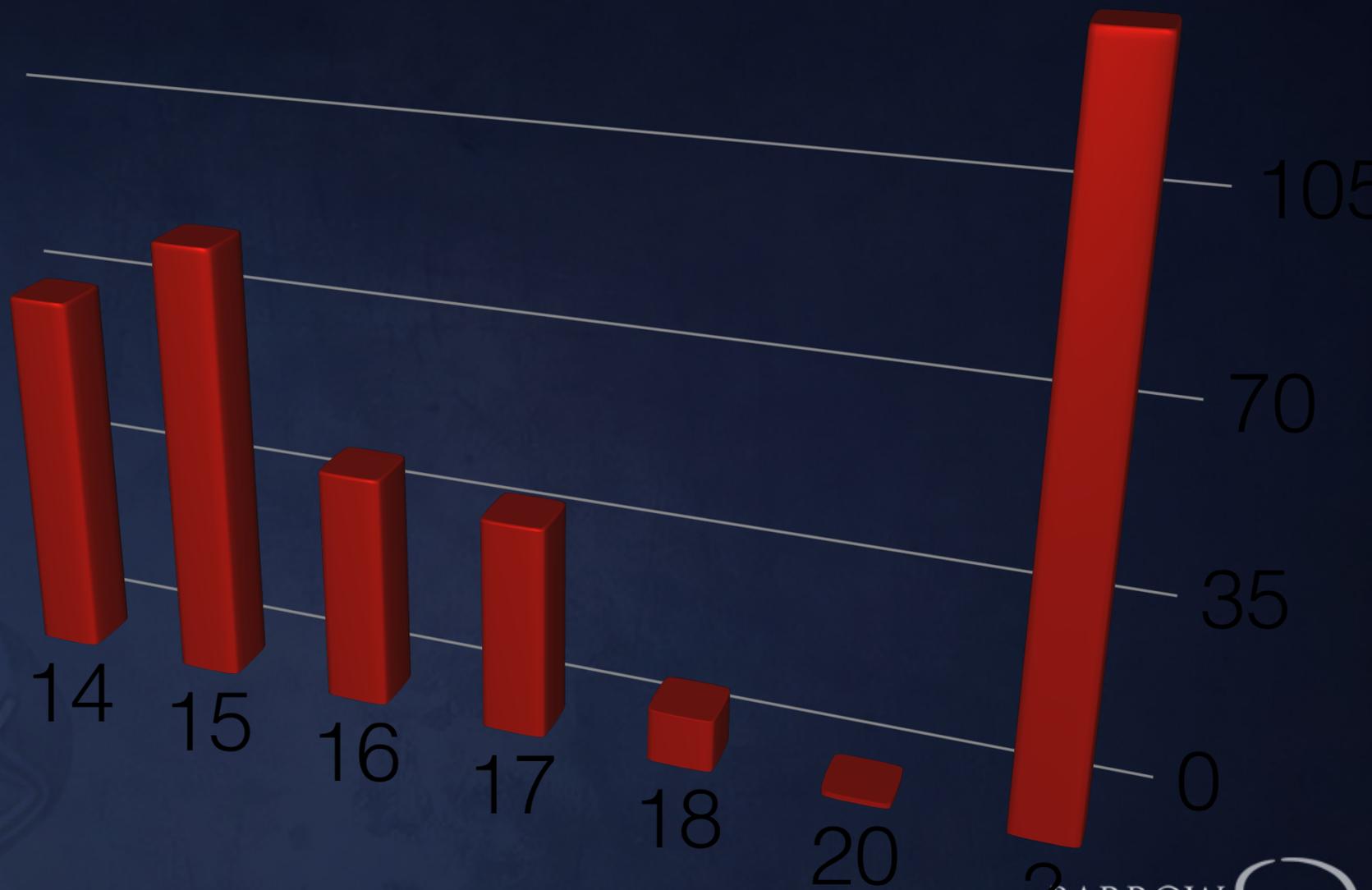


Barrow Concussion Network 2013-2016

- Total unique consultations: 352
 - Baseball - 7
 - Basketball - 30
 - Cheerleading - 22
 - Football - 108
 - Soccer - 46
 - Volleyball - 10
 - Wrestling 25
 - Unknown - 133
- Average response time 23 minutes

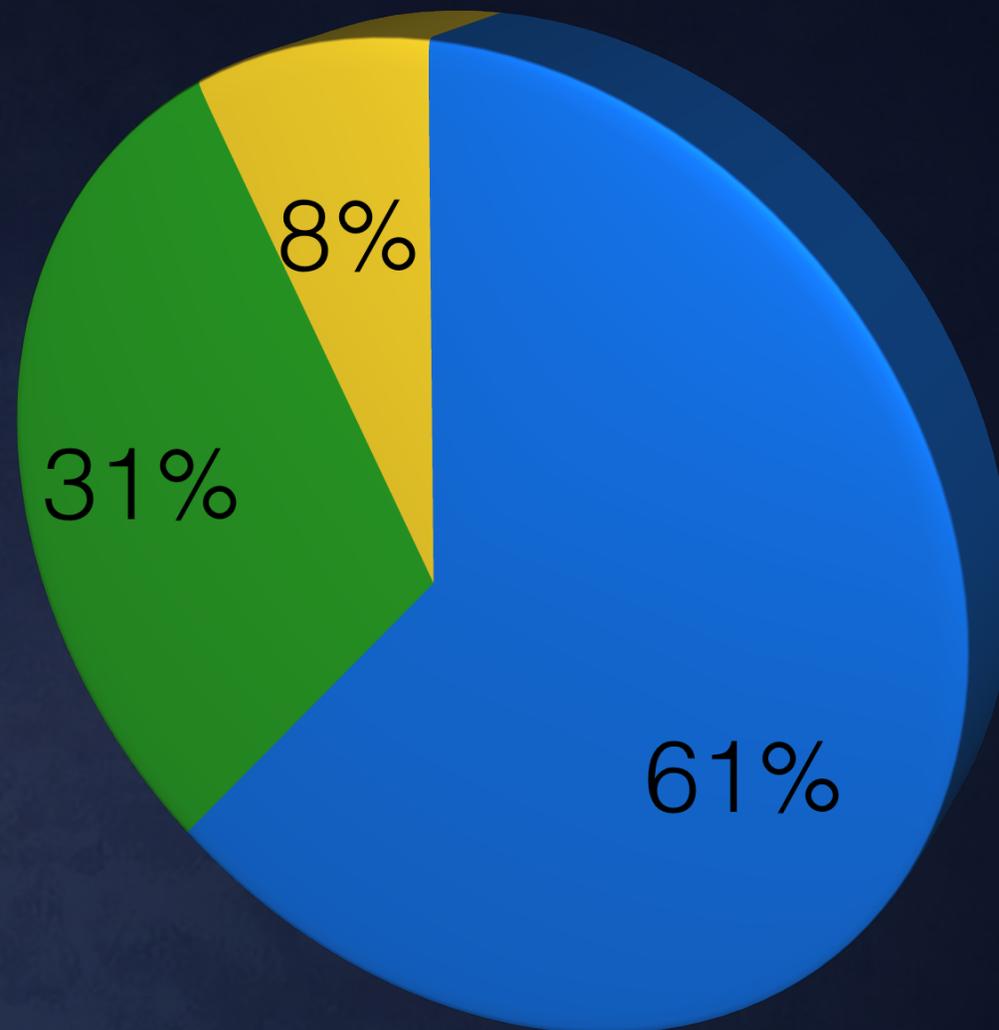
BCN Consultations by Age

- Average age 15
- 14 (70)
- 15 (84)
- 16 (45)
- 17 (41)
- 18 (10)
- 20 (1)
- Unknown (101)



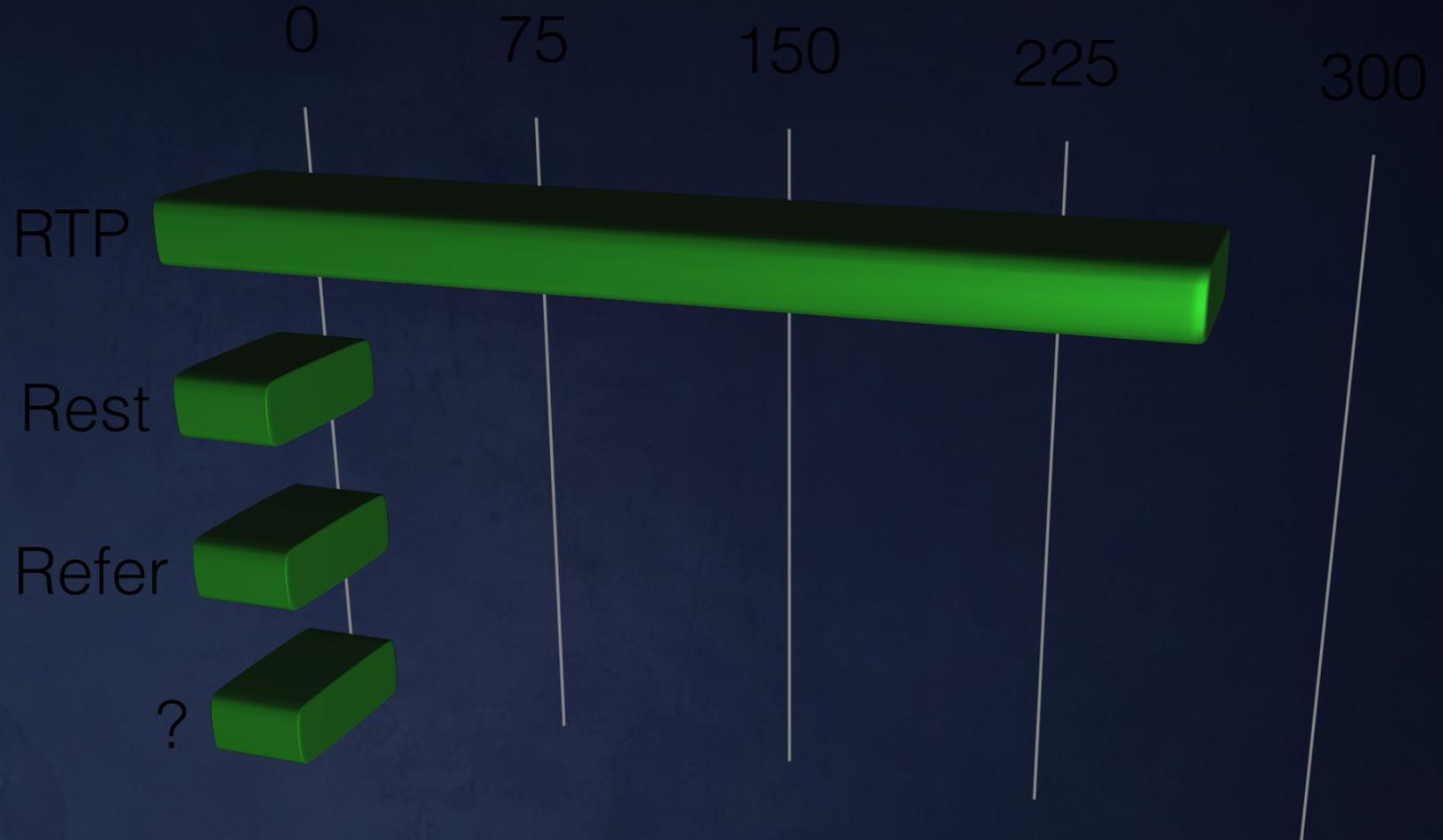
BCN Consultations by Gender

- Gender
 - Male 218
 - Female 112
 - Undefined 22



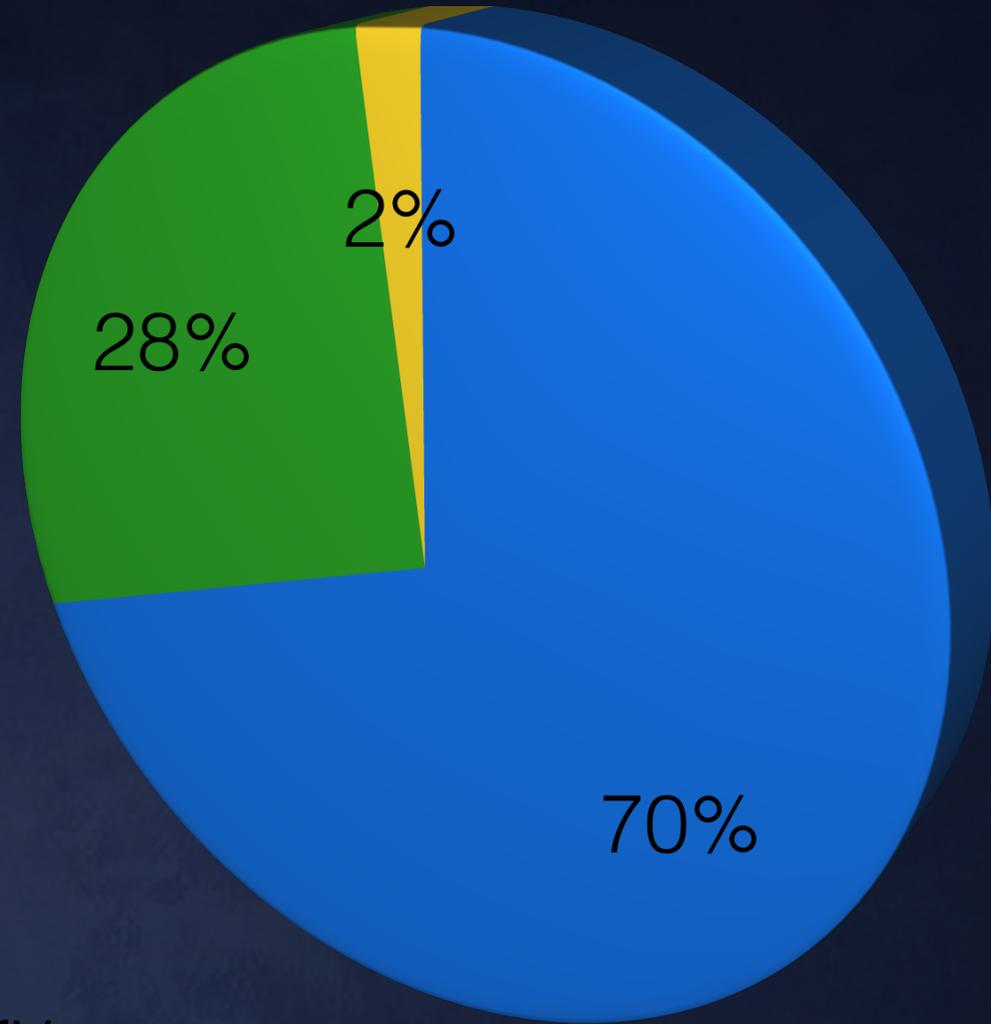
BCN Consultations Recommendations

- Recommendation
 - Rest 29
 - Return to Play 269
 - Refer to Clinic 30
 - Undefined 29



Cost Savings?

- Educational prevention of injury?
- ImPACT Baseline testing (\$10)
 - \$1,447,770
- ImPACT Post -injury testing (\$25)
 - \$575,225
- Concussion clinic visit (\$350)
 - RTP (n=269)
 - \$94,150
- Total savings
 - \$2,117,145



- Baseline
- Post-injury
- Clinic

The Team

Tamara McLeod, PhD, AT



Glynnis Zieman, MD

Kareem Shaarawy, MD



Kristina Wilson, MD

Christina Kwasnica, MD

Javier Cardenas, MD



Shelli Herseth, AT

Senate Engrossed

State of Arizona
Senate
Fiftieth Legislature
First Regular Session
2011

SENATE BILL 1521

AN ACT

AMENDING SECTION 15-341, ARIZONA REVISED STATUTES; RELATING TO SCHOOL DISTRICT GOVERNING BOARDS.

Arizona SB 1521

- "Guidelines, information and forms...to inform and educate coaches, pupils and parents about the dangers of concussion..."
- "Before a pupil participates in an athletic activity, the pupil and the pupil's parent must sign an information form at least once a school year..."
- "A pupil who is suspected of sustaining a concussion...be immediately removed..."
- "A pupil may return to play on the same day if a qualified health care provider rules out a concussion."

Arizona SB 1521

- "On a subsequent day, the pupil may return to play if the pupil has been evaluated by and has received written clearance ... from a qualified health care provider..."
- "A qualified health care provider includes:"
 - MD, DO
 - PA, NP
 - ATc



Helmet Rule 2011

- FOOTBALL HELMET RULE - AIA SMAC
- "If IN THE COURSE OF PLAY, the football helmet becomes dislodged FROM THE PLAYER'S HEAD, the helmet must be IMMEDIATELY inspected for quality and fit by a coach, equipment manager or athletic trainer, during which TIME the player is required to sit out for at least one play. If THE TEAM DOES NOT WANT THE PLAYER TO SIT OUT THEN, then the team must take a time out. IF THE AFFECTED TEAM HAS NO REMAINING TIME OUTS, THE PLAYER MUST SIT OUT FOR AT LEAST ONE PLAY."

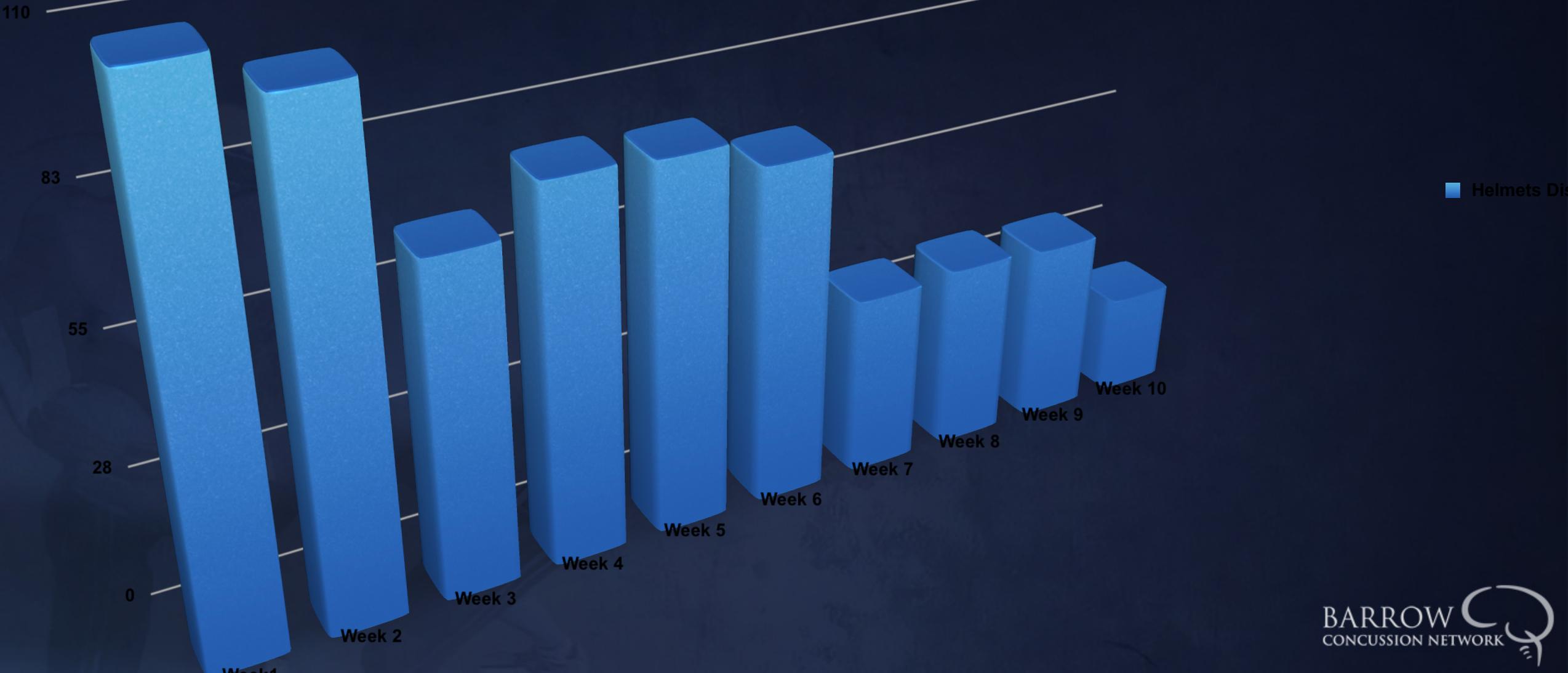
AIA

ARIZONA
INTERSCHOLASTIC
ASSOCIATION

OUR STUDENTS. OUR TEAMS . . . OUR FUTURE.

BARROW
CONCUSSION NETWORK

Helmet Rule 2011





High School Football Players Must Sit Out One Play When Helmet Comes Off



FOR IMMEDIATE RELEASE

Contact: Bob Colgate

INDIANAPOLIS, IN (February 9, 2012) — High school football players must sit out one play next year if their helmet comes off while the ball is live.

In cases where the helmet comes completely off without it being directly attributable to a foul by the opponent, the player will have to leave the game for at least one down.





Rule 3-3-9

Helmet Comes Off—Timeout (New Article)

ARTICLE 9.

- a. If during the down a player's helmet comes completely off, other than as the direct result of a foul by an opponent, the player must leave the game for the next down. The game clock will stop at the end of the down.





NEWS RELEASE

NFHS Concussion Task Force Recommendations to be Discussed by State Associations for Implementation in 2015

FOR IMMEDIATE RELEASE Contact: Bob Colgate

INDIANAPOLIS, IN (November 12, 2014) — The National Federation of State High School Associations (NFHS) has finalized its position paper from the NFHS Concussion Summit Task Force, which met in July to develop recommendations for minimizing the risk of concussions and head impact exposure in high school football.

The recommendations, which have been shared with the 51 NFHS-member state high school associations, and approved by the NFHS Sports Medicine Advisory Committee (SMAC) and the NFHS Board of Directors, will be discussed by state associations at the NFHS Winter Meeting in early January for implementation in the 2015 football season.

The 24-member task force, which featured medical doctors, athletic trainers, high school

Many of the recommendations focus on reducing the amount of full contact, including limiting the amount of full contact in practices during the season.

limiting the amount of full contact in practices during the season.

The Concussion Summit was the latest effort by the NFHS to minimize risk for the almost 7.8 million student participants in high school sports. In 2008, the SMAC advocated that a concussed athlete must be removed from play and not allowed to play on the same day. For the past five years, all NFHS rules publications have contained guidelines for the management of a student exhibiting signs, symptoms or behaviors consistent with a concussion. In 2010, the NFHS developed an online course – “Concussion in Sports – What You Need to Know” – and about 1.7 million individuals have taken the course through the NFHS Coach Education Program at www.nfhslearn.com.

The “Recommendations and Guidelines for Minimizing Head Impact Exposure and Concussion Risk in Football” position paper is posted on the NFHS website at www.nfhs.org.

About the National Federation of State High School Associations (NFHS)

The NFHS, based in Indianapolis, Indiana, is the national leadership organization for high school sports and performing arts activities. Since 1920, the NFHS has led the development of education-based interscholastic sports and performing arts activities that help students succeed in their lives. The NFHS sets direction for the future by building awareness and support, improving the participation experience, establishing consistent standards and rules for competition, and helping those who oversee high school sports and activities. The NFHS writes playing rules for 16 sports for boys and girls at the high school level. Through its 50 member state associations and the District of Columbia, the NFHS reaches more than 19,000 high schools and 11 million participants in high school activity programs, including more than 7.7 million in high school sports. As the recognized national authority on interscholastic activity programs, the NFHS conducts national meetings; sanctions interstate events; offers online publications and services for high school coaches and officials; sponsors professional organizations for high school coaches, officials, speech and debate coaches, and music adjudicators; serves as the national source for interscholastic coach training; and serves as a national information resource of interscholastic athletics and activities. For more information, visit the NFHS website at www.nfhs.org.

practice time may be

practice time

ner.



During the preseason contact practices

During the regular season may

Definition of Contact



Arizona Interscholastic Association

2016 Blindside Block Experiment

Experimental Rule

Definition: A blindside block is any forceful block, outside the free blocking zone, against a defenseless player who does not have a reasonable opportunity to see the blocker approach.

Foul: No player or nonplayer shall...
n. Deliver a blindside block to an opponent unless initiated with open hands.



AIA

ARIZONA
INTERSCHOLASTIC
ASSOCIATION



New football rule changes should spell end to pop-up onside kicks, dangerous blindside blocks

115
SHARES

 SHARE

 TWEET

 EMAIL

THE

The AIA has secured Headstrong Concussion Insurance beginning with the 2016-2017 school year.

The HeadStrong Concussion Insurance Program was specifically developed to insure student athletes from the high cost of concussion treatment and neurological follow up that may be required after a suspected concussion.

For \$1.50 per student athlete, the individual has 'first dollar' coverage (zero deductible) for concussion assessment and treatment.

Coverage is secondary/excess to any other valid and collectable insurance but will become the primary payor, if no other insurance is available.

Program Highlights Include:

- \$0 deductible and no Co-pays
- Telemed Services, when needed
- No restrictions on specific doctors
- No referrals needed for treatment
- No internal limits
- No specific procedure maximums
- Neurological follow up care – When medically necessary and billed at U&C.

HOW TO SUBMIT A CLAIM UNDER THE CONCUSSION PROGRAM

- 1) Submit the incident report within 365 days of the injury.
- 2) Make certain that the incident report is completed in its entirety, including the policy number (JXS000027561300), with accurate and detailed injury information and how the accident happened.
- 3) The incident report **MUST BE SIGNED** by a representative of the school. **INCIDENT REPORTS WHICH ARE NOT SIGNED, WILL DELAY THE CLAIM.**
- 4) Physician billings on CMS1500 forms and hospital/facility billings on UB04 forms would be preferred as these forms contain all the necessary coding required to process a claim. See bullets #5 & 6 for additional instruction regarding bills.
- 5) If the injured participant has primary insurance, each bill should be submitted with the primary insurance Explanation of Benefits or denial.
- 6) If the injured participant has primary insurance, all providers should be informed of the primary insurance information so they are billed first, and the K&K information for the concussion program insurance billed second.
- 7) When the injured participant does not have primary insurance, we have agreements through PPO networks that allow many bills to be reduced with contractual discounts. We encourage injured participants NOT to pay claims in advance of submitting them to us, so these discounts can be used.

Headstrong Concussion Insurance Policy Information

Arizona Interscholastic Association, Inc.

Broker: Dissinger Reed

Third Party Administrator (TPA): K&K Insurance

Insurance Carrier: Nationwide Life Insurance Company – AM Best Rated A+XV

- **Policy #:** JXS0000027561300
- **Coverage Period:** July 1st, 2016 – July 1st 2017
- **Deductible:** \$0 per claim
- **Eligible Person:** All athletes participating in a Covered Activity
- **Covered Activities:** Participating in practice or play of sports governed and/or sponsored by the AIA
- \$25,000 per injury medical maximum
- 1-year benefit period (Benefits will be payable for 1 year from the injury date)
- Usual and Customary 100%
- Accidental Death & Dismemberment \$5,000
- Accidental Death and Dismemberment Aggregate \$250,000

How to file a claim:

 kk.newpaclaims@kandkinsurance.com

Fax: (260) 459-5915

Phone: (800) 237-2917

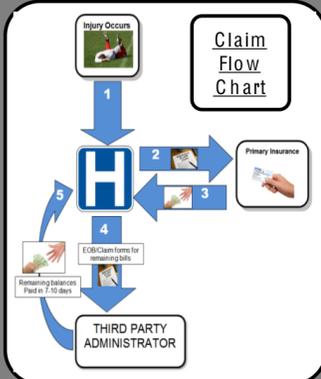
 K&K Insurance/Specialty Benefits
1712 Magnavox Way, PO Box 123
Ft. Wayne, IN 46804

Please submit the completed and signed claim form along with itemized bills and EOB's from the primary insurance carrier. The more information you can provide upfront, the better. Claims payments are expedited with CLEAN submissions allowing us to pay you providers quickly.

Third Party Administrator



www.kandkinsurance.com



PRIMARY CONTACT



James Maxwell

31 Fieldbrook Place
Moraga, CA 94556
Phone: (415) 517-4545

jmaxwell@dissingerreed.com



1712 Magnavox Way P.O. Box 2338
Fort Wayne, Indiana 46801
PH (800) 237-2917
Fax (312) 381-9077
<http://www.kandkinsurance.com>

K&K INCIDENT REPORT

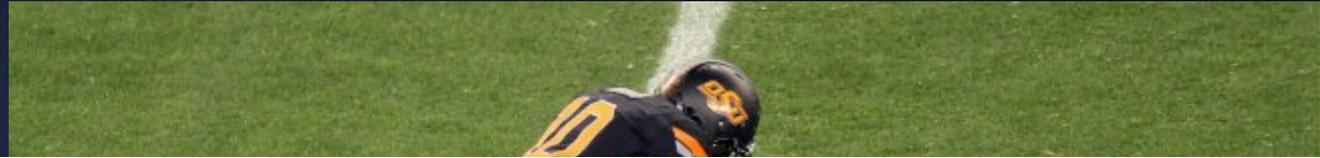
Arizona Interscholastic Association
Concussion Coverage



(PLEASE PRINT)

NATURE	<input type="checkbox"/> BODILY INJURY <input type="checkbox"/> OTHER: _____
TIME & PLACE OF INCIDENT	DATE: _____ TIME: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM EVENT NAME: _____ EVENT TYPE: _____ CONDUCTED BY: _____ LOCATION: _____
HAPPENED TO	NAME: _____ SSN: _____ DATE OF BIRTH: _____ SEX: <input type="checkbox"/> Male <input type="checkbox"/> Female PHONE: (____) _____ ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____
FUNCTION	AS: <input type="checkbox"/> ATHLETE <input type="checkbox"/> OTHER: _____
APPARENT INJURY OR DAMAGE	BODY PART: _____ CONDITION: _____ <input type="checkbox"/> ON-SITE CARE ONLY, BY (PHYSICIAN) (EMT) (TRAINER) OTHER: _____ <input type="checkbox"/> AMBULANCE, TAKEN TO: _____ CITY: _____ <input type="checkbox"/> FATALITY
OCCASION	WHAT WAS THE SITUATION AND EXACT LOCATION AT THE TIME OF THE INCIDENT? _____ _____ _____
INCIDENT DESCRIPTION	DESCRIBE WHAT HAPPENED: _____ _____ _____
OTHER SCHOOL INSURANCE	DOES THE SCHOOL PROVIDE ANY OTHER ACCIDENT MEDICAL COVERAGE FOR THE STUDENTS? <input type="checkbox"/> Yes <input type="checkbox"/> No IF YES, PLEASE PROVIDE THE NAME OF THE COMPANY: _____ _____
INSURED	NAME OF INSURED: _____ POLICY#: _____ CLUB NAME: _____ PHONE: (____) _____ CITY: _____ STATE: _____
INSURED REPRESENTATIVE	<input type="checkbox"/> MHSAA Member School Administrator <input type="checkbox"/> OTHER: _____ NAME: _____ PHONE: (____) _____ TITLE: _____ ORGANIZATION: _____ SIGNATURE: _____ DATE: _____

**COMPLETE ALL SECTIONS AND FAX OR MAIL IMMEDIATELY TO:
K&K INSURANCE GROUP, INC., P.O. BOX 2338, FORT WAYNE, IN 46801-2338**
THIS FORM MUST INCLUDE THE INSURED NAME, POLICY NUMBER, AND SIGNATURE OF THE INSURED/REPRESENTATIVE
BEFORE RETURNING OR PROCESSING MAY BE DELAYED



Rule 3-3-9

Helmet Comes Off—Timeout (New Article)

ARTICLE 9.

- a. If during the down a player's helmet comes completely off, other than as the direct result of a foul by an opponent, the player must leave the game for the next down. The game clock will stop at the end of the down.





NEWS RELEASE

NFHS Concussion Task Force Recommendations to be Discussed by State Associations for Implementation in 2015

FOR IMMEDIATE RELEASE Contact: Bob Colgate

INDIANAPOLIS, IN (November 12, 2014) — The National Federation of State High School Associations (NFHS) has finalized its position paper from the NFHS Concussion Summit Task Force, which met in July to develop recommendations for minimizing the risk of concussions and head impact exposure in high school football.

The recommendations, which have been shared with the 51 NFHS-member state high school associations, and approved by the NFHS Sports Medicine Advisory Committee (SMAC) and the NFHS Board of Directors, will be discussed by state associations at the NFHS Winter Meeting in early January for implementation in the 2015 football season.

The 24-member task force, which featured medical doctors, athletic trainers, high school

During the presea

During the regular

Definition of Contact

practices.

tact practices.

Many of the recommendations focus on reducing the amount of full contact, including limiting the amount of full contact in practices during the season.

limiting the amount of full contact in practices during the season.

The Concussion Summit was the latest effort by the NFHS to minimize risk for the almost 7.8 million student participants in high school sports. In 2008, the SMAC advocated that a concussed athlete must be removed from play and not allowed to play on the same day. For the past five years, all NFHS rules publications have contained guidelines for the management of a student exhibiting signs, symptoms or behaviors consistent with a concussion. In 2010, the NFHS developed an online course – “Concussion in Sports – What You Need to Know” – and about 1.7 million individuals have taken the course through the NFHS Coach Education Program at www.nfhslearn.com.

The “Recommendations and Guidelines for Minimizing Head Impact Exposure and Concussion Risk in Football” position paper is posted on the NFHS website at www.nfhs.org.

About the National Federation of State High School Associations (NFHS)

The NFHS, based in Indianapolis, Indiana, is the national leadership organization for high school sports and performing arts activities. Since 1920, the NFHS has led the development of education-based interscholastic sports and performing arts activities that help students succeed in their lives. The NFHS sets direction for the future by building awareness and support, improving the participation experience, establishing consistent standards and rules for competition, and helping those who oversee high school sports and activities. The NFHS writes playing rules for 16 sports for boys and girls at the high school level. Through its 50 member state associations and the District of Columbia, the NFHS reaches more than 19,000 high schools and 11 million participants in high school activity programs, including more than 7.7 million in high school sports. As the recognized national authority on interscholastic activity programs, the NFHS conducts national meetings; sanctions interstate events; offers online publications and services for high school coaches and officials; sponsors professional organizations for high school coaches, officials, speech and debate coaches, and music adjudicators; serves as the national source for interscholastic coach training; and serves as a national information resource of interscholastic athletics and activities. For more information, visit the NFHS website at www.nfhs.org.



Soccer Rule

25.2.5 **Contact Rule/ Heading Training** - Definition of Contact Rule/Heading Training – Specific activities wherein the student-athlete(s) actively heads the ball consistently as a manner of technical training. Contact/Heading during the course of simulated match activities does not constitute specific heading training. (i.e. heading a ball from a cross, heading a punted ball during a simulated game, etc.)

Pre-Season – During the pre-season, no more than 15 minutes of practice time each day with no more than two training sessions each week may include specific heading activities.

Regular Season/Post-Season – During the regular season and post-season, no more than 15 minutes of practice time each day and no more than 2 practices each week may include specific heading activities.

25.2.5.1 For all pre-season, regular season and post-season practices, specific heading activities shall not be conducted on consecutive days. (Emergency Legislation 9/10/14)

Agenda

9 – 10 a.m.

The Barrow Concussion Network

Javier Cárdenas, MD

Objectives:

- Access the Barrow Concussion Network (BCN)
- Log a case in the concussion research registry
- Submit a case for consultation.

10 - 10:15 a.m.

Break

10:15 – 11 a.m.

ImPACT Baseline Evaluations

Tamara McLeod, PhD, ATC

Objectives:

- Administer baseline ImPACT evaluations
- Interpret baseline ImPACT evaluations

11 a.m.- 12 p.m.

Sideline Concussion Assessment

Glynnis Zieman, MD

Objective:

- Demonstrate effective communication of a sideline concussion evaluation

The AZ Team

Tamara McLeod, PhD, AT



Glynnis Zieman, MD



Kareem Shaarawy, MD



Kristina Wilson, MD



Ian Crain, MD



Javier Cardenas, MD

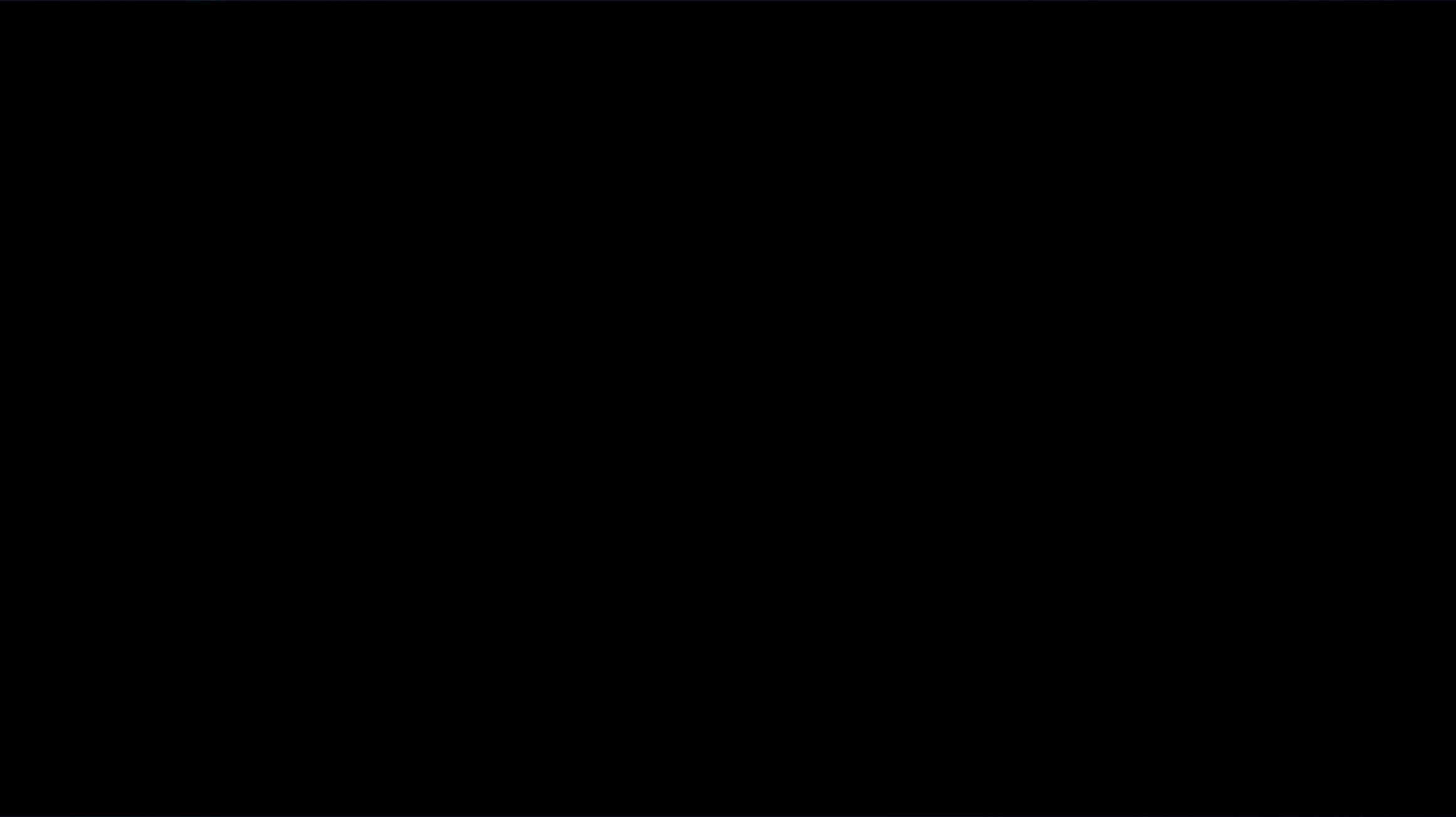


Casey Erickson, AT

AZ Numbers

- Barrow Brainbook 320,875
- Barrow Brainball 9008 downloads
- ImPACT
 - Baseline 121,762
 - Post injury 23,009
- Sway users 142
- Consultations 352





Advocacy in Action

- Identify a problem
- Propose a solution
- GO TO PALF!
- Design a plan to execute your solution
- Collaborate
- Collaborate
- Collaborate

