



The next step in concussion management:
Return to Learn

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 Oct 13, 2018

Disclosures

- Current service:
 - Member, OSAA Sports Medicine Advisory Committee
 - Member, Oregon Medical Board
 - Member, BOC Board of Directors

I have no stake or compensation relevant to today's topic from these entities, or any which may be mentioned in the presentation.

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Objectives

- Upon completion, the participant will:
 - have a refreshed knowledge of concussion etiology and recovery
 - understand future requirements of PAs to return patients to sport participation in Oregon
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Returning to learning is often overlooked in concussion from sport.

- Sport caused, sport focused.
- Early return to sport can be catastrophic.
- Suboptimal resumption of occupation (student) can cause subsequent illness.

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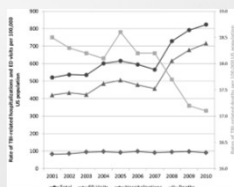
Concussion review:

- Mild TBI
- Imaging negative
- LOC is not a good indicator of severity
- Brain impairment affects physical, cognitive, and emotional function
- Recovery typically quick, but can be prolonged

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Concussion review:

- "everybody's getting a concussion these days!"



From: <https://www.cdc.gov/traumaticbraininjury/data/rates.html>

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Concussion laws in Oregon were amended in 2018.

- "Max's Law" and "Jenna's Law" were amended by Oregon SB 1547 to permit more providers, including chiropractors, naturopaths, physical therapists, and occupational therapists, to clear concussed patients to return to sport participation.
- New online educational training was mandated, and all providers except MD/DO physicians must complete it.
- Training is not yet created.
- Law takes effect July 1, 2020

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Return to play follows a progressive approach aligned with symptom resolution.


Graduated, Step-wise Return-to-Participation Progression

1. **No activity:** Complete rest, both physical and cognitive. This may include no school, work, or home work as activities requiring concentration and attention.
2. **Light aerobic exercise:** Walking or stationary bike at low intensity.

Before progressing to the next stage the student must be symptom free.

3. **Sport-specific exercise:** Sprinting, dribbling basketball or soccer.
4. **Non-contact training:** More complex drills in full equipment.
5. **Full contact practice:** Participate in normal training activities.
6. **Unrestricted Return-to-Participation/full competition (Earliest):** Participate in full contact practice.

The student should spend a minimum of one day at each step. If symptoms return, the student should rest for 24 hours and then resume activity one-step below where they returned to rest. This return applies to all activities including sports and PE classes.



<http://www.osaa.org/docs/forms/Concussion-ReturntoParticipation.pdf>

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Neuropsychologic testing tools often augment clinical judgement in return to play decisionmaking.

SCAT5 SPORT CONCUSSION ASSESSMENT TOOL – 5TH EDITION
DEVELOPED BY THE CONCUSSION IN SPORT GROUP
FOR USE BY MEDICAL PROFESSIONALS ONLY



 <https://impacttest.com/>

<https://bjm.bmj.com/content/bjsports/early/2017/04/26/bjsports-2017-097506.CAT5.full.pdf>

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Concussion management is an evolving field.

<https://www.cdc.gov/traumaticbraininjury/PediatricTBIGuideline.html>

CDC'S GUIDELINE ON THE
Diagnosis and Management of Mild
Traumatic Brain Injury Among Children

CDC HEADS UP
SAFER • HEALTHIER • PEOPLE

25 YEARS OF SCIENTIFIC
RESEARCH EXAMINED

19 SETS OF CLINICAL
RECOMMENDATIONS
CREATED

Learn how to improve the care of your
young patients: www.cdc.gov/HEADSUP

www.cdc.gov

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A Systematic Review

https://jamanetwork.com/journals/jama-pediatrics/article-abstract/2696455

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Rest is important for concussion recovery. -Relatively Speaking-

- Recovery is energy intensive
- Patient is vulnerable to additional injury
- Dysregulation can prolong healing

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However, (new)current evidence suggests that resting for too long (greater than 2-3 days) is detrimental.

- Anxiety, depression
- "Nocebo" effect
- Subsymptomatic exercise causes increased blood flow

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Learning is cognitively challenging...on a good day.

- How do you get them back to school in a 30 minute family practice office visit? What are your orders?
- Who do we work with?
- What barriers exist?

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Overcome barriers of communication with prior planning.

- Clinics and schools follow different laws and guidelines.
- HIPAA and FERPA releases should be ready for completion in your office.
- Know the point person(s) for TBI RTL in your local school districts.

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The concussion team may be very large...but should be as simple as possible.

- | | |
|------------------------|-------------------------|
| • School Nurse | • PCP |
| • School Psychologist | • Medical support staff |
| • Counselor | • Neurologist |
| • Coach | • Neuropsychologist |
| • Athletic Director | • Physical Therapist |
| • Athletic Trainer | • Parent |
| • School Administrator | • Patient |
| • Teacher | |

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Overcome barriers of time scarcity with prior planning.

- Cross train multiple people in your clinic to be point-of-contact person for school communication, and to complete some assessments (i.e. - SCAT5) upon check-in.
- Document/resource packets ready for parents/patients, and for school in advance.

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Optimize your patient contacts with prior planning.

- Single encounter is often reasonable for return to sport and play. 80% return to regular function within 10 days.
- Subsequent encounters should be pre-planned and take advantage of info pushed from school to clinic.
- Referral to allied professionals often when the first 7-10 days aren't sufficient for resolution.
- specialist often occurs after 3-4 week threshold of symptom continuation.

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Accommodation of school activities and requirements can be challenging to do from your office.

- Teachers are harder to reach than a specialist on an early Friday afternoon.
- Written lists are a good tool, but not a substitute for trained teammates in the schools.
- Strive to build relationships to the "eval and treat" level of understanding and trust.

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Students are entitled to an appropriate education.

- Individualized Education Plan under IDEA is a special education plan
- An IEP may be necessary if concussion symptoms continue for more than a few months. These are truly rare.
- 504 Plan (from sect 504 of the rehabilitation act) is a plan for accommodation in regular education, rather than special education.
- A 504 plan may be helpful to consider when symptoms exceed 3-4 weeks.

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Resources for providers, parents, and school personnel are available.



<https://cbirt.org/>

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<http://www.asa.org/health-safety/concussion>

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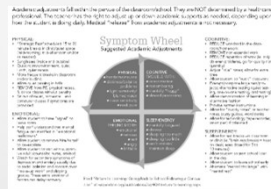
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http://www.osaa.org/docs/health-safety/REAPEnglish-August2015.pdf

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Ending with a bad slide. And a story...



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Questions?

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