

## HeadCheck™

### Concussion Recognition Support Tool

#### The opportunity

In Australia in 2012, 1.7 million children aged 5 to 14 (60% of children in this age group) participated in at least one organised sport outside of school hours. In the US this is estimated to be 21.5M children.

Research has shown that:

- participants of organised sport are 6 times more likely to receive a concussion or severe internal head injury than from other physical activities; and
- premature return to play and school may put the child at risk of further concussions.

Over 1000 children per year are admitted to the Royal Children's Hospital, Melbourne presenting with symptoms of concussion. Most parents (~75%) who bring their children to Emergency with sports concussion symptoms had no knowledge of the severity of the concussion, even if they attended the game.

#### The Application

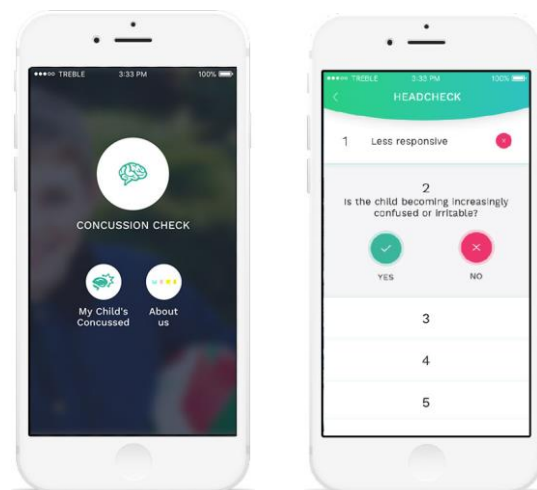
**HeadCheck** is a concussion decision support app that has been developed by leading neuropsychologists and emergency doctors at the Murdoch Children's Research Institute (MCRI) and the Royal Children's Hospital, Melbourne.

**HeadCheck** has been designed for non-medical people as an easy to use app that will quickly identify using a series of questions, whether a child's head injury requires an ambulance or a visit to the doctor. Using the newly developed Child SCAT 3 concussion assessment protocol as a guide, **HeadCheck** is a simple concussion decision support tool presented in an accessible format. The Child SCAT 3 was commissioned by the International Consensus on Concussion group, and developed and trialled at MCRI.

The MCRI is one of the world's leading paediatric research institutes. **HeadCheck** has been developed with concussion experts Professor Vicki Anderson and A/Professor Franz Babl, and their team, Take CARE. Their work was presented as the latest in paediatric concussion research at the Concussion in Sport Conference, Berlin 2016. **HeadCheck** is endorsed by the Australian Football League (AFL).

#### The Technology

**HeadCheck** is available for both iOS and Android through iTunes or Google Play.



#### Future Product Development

Concussion research at MCRI has led to significant new knowledge about child and adolescent concussions symptoms. As part of our knowledge translation agenda, to ensure research findings impact on management of sports concussion, we have incorporated this information into the next version of **HeadCheck**.

#### Applications and Market

There is increasing global interest in concussion prevention and management from the community, organised sporting bodies through to professional sports organisations. MCRI is leading the way in developing an evidence based approach for the management of paediatric concussion that will be relevant for parents, schools and sporting organisations nationally and internationally.

#### Publications

Davis, GA, Thurairatnam, S, Feleggakis, P, Anderson, V, Bressan, S, Babl, FE. (2015). *HeadCheck: A concussion app*. Journal of Paediatrics and Child Health, 51 (8), 830 – 831.

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