ICAD

INFANT CONCUSSION ASSESSMENT DEVICE

Our mission is to improve the quality of life for infants by developing an innovative product designed to help ER staff accurately diagnose concussions.

The infant concussion assessment device will be utilized to aid in diagnosing a concussion through the use of an algorithm that analyzes eye movement through EOG.
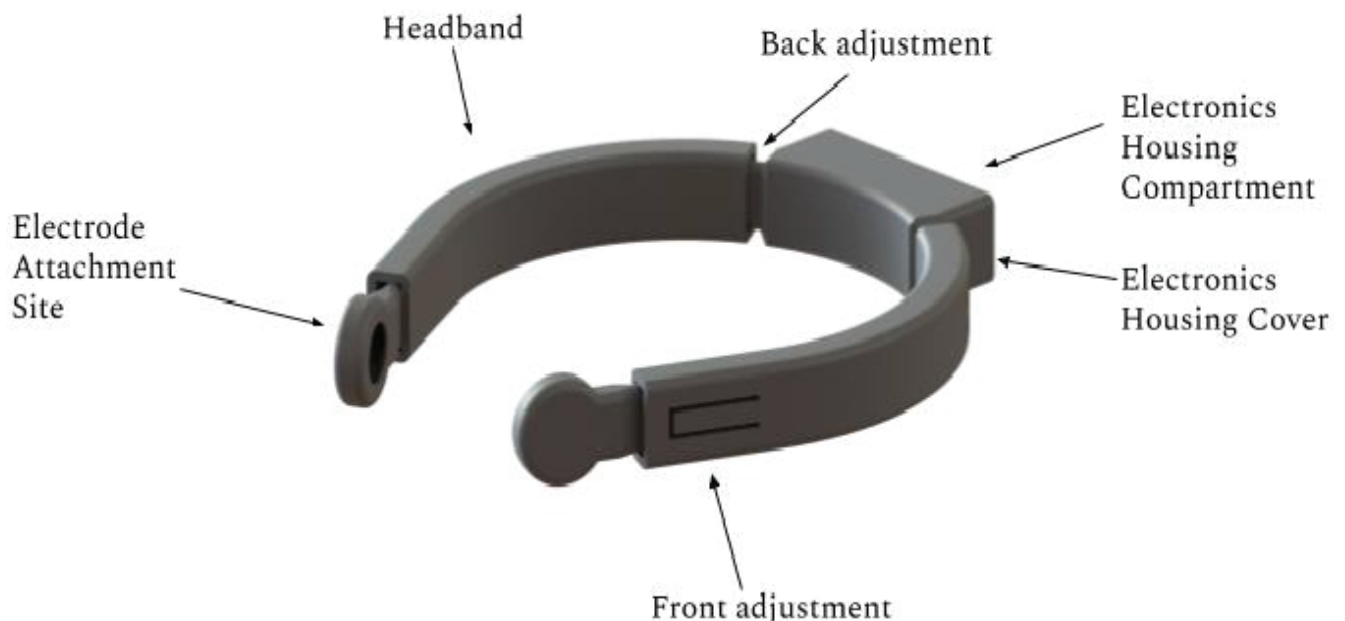
CLINICAL NEED

ER doctors need a way to accurately diagnose concussions in patients 0-2 years of age who can not communicate their cognitive, visual, and verbal state.

300,000 concussions go misdiagnosed or undiagnosed each year

22% of infants will experience a fall from bead/table height or from a person's arms with 97% resulting in head injury

97 out of 1000 children under the age of 4 experience a concussion

Concussions alone cost the US **$45 billion** annually

Headband

Back adjustment

Electronics Housing Compartment

Electrode Attachment Site

Electronics Housing Cover

Front adjustment

MEASURES EYE MOVEMENTS
Electroculography is used to measure the electrical potenetial of the eye to detect its movement.

FITS CHILDREN 0-2 YEARS OF AGE
Device is adjustable from 12-22 inches to fit all head sizes. and the device weighs less than 10 ounces.

SAFE
Biocompatible by ISO 10993 and strength testing to prevent device breakage during use.

EASY TO CLEAN
External surfaces are compatible with current cleaning methods. Cleaning takes less than 10 minutes.

EASY TO USE
Training takes less than 30 minutes and the battery life lasts long enough to conduct two tests.

QUANTIFIES ABNORMALITIES
The EOG data is put into an algorithm that quantifies the occurance of abnormal eye movments to diagnose a concussed patient.

CLINICAL APPLICATION

Currently, doctors perform an ACE (Acute Concussion Evalutation) on a patient when they enter the ER. This subjective evaluation mainly consists of cognitive and verbal components. Infants are unable to communicafte their cogntive and verbal states to the physician. The ICAD will be used in the ER setting as a non-verbal, quantitative concussion diagnosis for infants.

MARKET OVERVIEW

There are currently no devices on the market today that can diagnose a patient from 0-2 years of age with a concussion in the ER setting. Many products that are currently used as an aid or diagnositic device specify age groups such as 5-67 years old, 18+ years old, etc. Most products also require cognitive ques-

	Oculogica	BrainScope	RightEye	ICAD
Suitable for all ages	✗	✗	✗	✓
Non-Verbal Test	✓	✗	✗	✓
Biosignal Quantification	✗	✓	✗	✓
Portable	✗	✓	✓	✓

ANY QUESTIONS?
Contact us now!
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Check out our website to learn more, using the QR code below!