

**HOUSE . . . . . No. 1842**

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**The Commonwealth of Massachusetts**

PRESENTED BY:

*Bruce J. Ayers*

*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act directing the Massachusetts Department of Public Health to study the feasibility of reevaluating the process of testing for concussions and similar traumatic brain injuries.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>Bruce J. Ayers</i>	<i>1st Norfolk</i>	<i>1/9/2019</i>
<i>Joseph M. Kelly</i>	<i>88 Lakeshore Drive, Duxbury MA 02332</i>	<i>1/9/2019</i>

**HOUSE . . . . . No. 1842**

By Mr. Ayers of Quincy, a petition (accompanied by bill, House, No. 1842) of Bruce J. Ayers and Joseph M. Kelly relative to directing the Department of Public Health to study the feasibility of reevaluating the process of testing for concussions and similar traumatic brain injuries. Public Health.

[SIMILAR MATTER FILED IN PREVIOUS SESSION  
SEE HOUSE, NO. 1126 OF 2017-2018.]

**The Commonwealth of Massachusetts**

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**In the One Hundred and Ninety-First General Court  
(2019-2020)**  
\_\_\_\_\_

An Act directing the Massachusetts Department of Public Health to study the feasibility of reevaluating the process of testing for concussions and similar traumatic brain injuries.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1. For the purposes of this legislation, the following definitions shall apply:

2 (i): “Concussion” shall be defined as a traumatic brain injury (TBI) causing functional  
3 impairment.

4 (ii): “ImPACT test” shall be defined as a computer-based test for concussions and  
5 similar TBI’s, focusing on challenging subjects with shapes as well as questions that require  
6 thought.

7 SECTION 2. Whereas traumatic brain injuries such as concussions may result in  
8 permanent long-term brain damage, and whereas studies show current medical procedures used

9 to diagnose concussions often do not yield complete information and are not useful in the  
10 detection of mild brain injuries; this legislation shall instruct the Massachusetts Department of  
11 Public Health to study the feasibility of reevaluating concussion testing in the commonwealth.

12 SECTION 3. This study shall specifically compare and contrast the standard ImPACT  
13 testing system with a new method of detecting concussions. This new method of testing shall  
14 rely on changes in brain glucose metabolism, which can be measured both functionally and  
15 morphologically in the eye of a subject. This method consists of three separate phases; these  
16 phases shall be defined as follows:

17 (i): “Phase 1” shall use imaging technology to take video images or still photos of the  
18 movement of a subject’s pupil and iris when following and/or focusing on an object. Phase 1 also  
19 consists of collecting the data on the effects of a concussion and building a database with the  
20 results.

21 (ii): “Phase 2” shall involve the identification of morphological alterations in structures  
22 of the eye due to the alterations in blood flow and glucose metabolism after a concussion.

23 (iii): “Phase 3” shall involve the use of the collected data to identify links between eye  
24 function and other neurological diseases. It shall also utilize the data collected to identify ways to  
25 deter and prevent concussions in the future.

26 SECTION 4: The Department of Public Health shall be responsible for conducting a  
27 comprehensive study on the feasibility of this new method of concussion testing, and how it  
28 compares to the standard ImPACT method. The findings of this study shall be reported to the  
29 Governor of the Commonwealth; the Joint Committee on Public Health; the general public; and  
30 other interested parties.

31           SECTION 5: The Department of Public Health shall provide the full findings of this  
32 study no later than 2 years after the passage of this legislation.