

Name: _____

ATHLETIC ABILITY

QUESTIONS

1. List another type of athlete besides a surfer who needs a good sense of proprioception. Why is this ability important to his or her sport?
2. Which of the following statements is BEST supported by evidence in the passage?
 - Ⓐ All expert surfers have a mutation in the PIEZO2 gene.
 - Ⓑ A mutation in the PIEZO2 gene may be linked to trouble balancing.
 - Ⓒ A person's ability to balance is determined only by his or her genes.
 - Ⓓ A mutation in the PIEZO2 gene causes damage to the vestibular system.
3. Explain why you think the researchers chose the two patients whose DNA they analyzed. Who else could they study to find other mutations in the PIEZO2 gene?
4. What effect would damage to a person's semicircular canals have on his or her proprioception?
5. A cold can cause excess fluid to build up in the inner ear. How might this affect a surfer's ability to perform tricks? Support your answer with evidence from the passage and diagram.