

Mythbusters Video – Helium Football

1. What is the “Helium Football” myth?
2. According to Tim Sonnenberg, the punter for the City College of San Francisco, how much distance would a helium-filled football add to an average punt?
3. To how many psi is a regulation football pumped?
4. After punting 5 air-filled balls and 5 helium-filled balls, which went, on average, further? How much further?
5. Why does Adam suspect that the punting test is flawed?
6. On average, by how much did the weight of a football increase when filled with air?
7. How do the densities of air and helium compare?
8. On average, how much less than the air-filled balls did the helium-filled footballs weigh?
9. How much pressure can a football hold before it bursts?

10. Did a football filled with helium weigh less than or more than a deflated football?

11. Based on indoor test data, how do air-filled footballs and helium-filled footballs compare?

12. Jamie suggests that physics supports an air-filled football travelling farther than a helium-filled ball, given the same launch speed. Explain the physics behind this.

13. Adam and Jamie build a kicking machine to replace the “throwing” machine. Why?

14. What do the kicking machine test results suggest about the transference of energy to air-filled and helium-filled footballs?

15. Was the myth confirmed or busted?