
Video Study Guide: *Crash Test*

1. How often do major injuries occur in the U.S. due to auto accidents?
2. During a crash about how many “g’s” does the driver experience (astronauts experience about 3 g’s at liftoff)?
3. Which of Newton’s Laws is addressed by air bags?
4. When and where did formal crash testing begin?
5. From a physics point of view what is the crumple/crush zone of a car designed to do?
6. Which race car driver survived a devastating crash at M.I.S. that led to improving the design of race cars?
7. Where do crash investigators get information about the forces involved in a race car crash?
8. What is the scientific name for a crash test dummy (Hint: ATD)?
9. What is the name of the latest \$100,000 family of test dummies that has accelerometers in the dummy’s head and sensors all throughout the body that give accurate crash test data?
10. What is the purpose of collapsible steering columns, laminated glass windshields, and padded dashboards (Think of chapter #7!!)?
11. Where in the world did the first breakthroughs in roadside barrier design take place in the 50’s?
12. What percent of crashes are caused by human error?
13. What clues do crash investigators look for at a car crash site?
14. How are computers being used to make crash testing more accurate—and cheaper?