

## Focused Topic: What To Do At a Crossing

SHORT LESSON APPROPRIATE FOR IN-CAR OR CLASSROOM

### Learning Objectives

Explain how to safely drive across train tracks

- At an active crossing
- At a passive crossing
- At a crossing with multiple tracks, after waiting for one train to pass
- How to avoid getting trapped on the tracks

### Materials

- *At a Crossing* Video [may be streamed or downloaded in advance of class]

### Introduction

*In some ways, railroad crossings are like an intersection with a busy road. The aim is to cross both safely, without incident. There will be pavement markings, signs or other safety signal present to remind you of safe crossing procedures, and always following these is vital. We're going to watch a short video today that introduces us to the basics of railroad crossing safety.*

### Watch Video

#### **At a Crossing** [3:55]

Following the video, ask the class: *What did you learn in the video that surprised you?*

### Crossing Safety Scenarios

Read the following scenarios aloud, and engage students in brief discussions to identify the correct answers to the questions that follow. (Answers and related safety information are included below for you to share with students.)

*1. A car stops for a passing train, and quickly pulls forward to cross the track once the train has passed—only to be struck by a different train coming from the other direction. How did this happen?*

**Answer: This crossing has multiple tracks.** The driver may not have realized this, and assumed that once the (first) train had gone past it would be safe to cross. Or, the driver may have realized that there were multiple tracks, but didn't wait long enough for the passing train to leave the crossing and provide a clear line of sight down the tracks—the departing train may have hidden the approaching train from view. You must always wait until you have a clear, long line of sight down the tracks in both directions. Once you do, look and listen for another train before driving over the crossing.

*2. You're on your way to a school football game. There's a railroad crossing you must drive over close to school. A long line of slow-moving cars is backed-up from the parking lot all the way to the crossing. The car in front of you drives across the tracks. Where does that car need to be before you can safely begin to drive through the crossing yourself?*

**Answer: The length of your car + 15 feet, minimum.** You should only begin crossing once you are sure you will have enough space for your entire vehicle to pass over the crossing and have 15 feet or more between your rear bumper and the far track. Any closer, and you might find yourself stuck in traffic in a dangerous location.

# Focused Topic: What To Do At a Crossing (Extended Version)

EXTENDED LESSON APPROPRIATE FOR CLASSROOM

## Learning Objectives

At the conclusion of this lesson, students will be able to explain how to safely drive across train tracks:

- At an active crossing
- At a passive crossing
- At a crossing with multiple tracks, after waiting for one train to pass
- How to avoid getting trapped on the tracks

## Materials

- *At a Crossing* Video [may be streamed or downloaded in advance of class]
- Crossing Scenarios Handout [copy 1 per student in advance of class]

## Introduction

*In some ways, railroad crossings are like an intersection with a busy road. The aim is to cross both safely, without incident. There will be pavement markings, signs or other safety signal present to remind you of safe crossing procedures, and always following these is vital. We're going to watch a short video today that introduces us to the basics of railroad crossing safety. Before we do this, you're going to write down your answers to a few questions that we'll come back to later in the lesson.*

Ask students to take out a piece of paper and be prepared to write down their answers to the following 4 questions. [Read these aloud.]:

1. If the pavement approaching a railroad crossing isn't marked with a stop line, what is the minimum distance before the track at which should you come to a complete stop?
2. True or False: About half of all vehicle/train collisions occur at crossings with flashing red lights, bells, or gates.
3. A car stops for a passing train, and quickly pulls forward to cross the track once the train has passed—only to be struck by a different train coming from the other direction. How did this happen?
4. True or False: You should never shift gears while driving over a railroad crossing.

## Watch Video

***At a Crossing*** [3:55]

## Safety Scenarios

Pass out the Crossing Scenarios handout for individual or small group use reflection/discussion. Depending on time, you may choose to assign students to attend to all scenarios, or ask different students to focus on different scenarios. Following the individual/small group work, bring students back together to share their ideas in a classroom discussion. The scenarios featured in the Crossing Scenarios handout with correct answers and related safety information for you to share during discussion follows:

### **Rear-End Risk**

You are approaching a railroad crossing that you drive through daily. You know it's marked by a crossbuck with yield sign. The visibility along the tracks in both directions is very good. As you approach

the crossing, you cannot see or hear a train coming. Yet, the vehicle in front of you comes to a complete stop 15' before the tracks. You quickly brake to avoid rear-ending this vehicle. (It's a good thing you were driving at the speed limit and were traveling at a safe following distance!) Why did the vehicle in front of you come to a stop?

**Answer:** Certain types of vehicles are required to always come to a stop at railroad crossings. Though this varies by state, these vehicles commonly include school buses, other buses, vehicles carrying hazardous material or passengers for hire.

### **Stalled on the Tracks**

Three friends are driving in a manual shift car. As they cross the tracks, the driver shifts gears and the car stalls. They hear the sound of a train horn in the distance, approaching from their right. They get out of the car immediately. Each friend runs away from the car stalled on the tracks in a different direction. Which friend has chosen the safest path and why?

- a) is running away from the train and tracks at a 45° angle
- b) is running away from the car, perpendicular to the tracks.
- c) is running toward the oncoming train but away from the tracks at a 45° angle

**Answer:** C. This friend is getting out of the pathway of debris that could go flying if the train collides with the car by running toward the train but away from the tracks at a 45 degree angle.

If there were no signs of an approaching train when the car stalled, should they:

- a) Try to restart the car so they can drive off the tracks?
- b) Put the car in neutral and try to push it off the tracks?
- c) Get out of the car and away from the tracks immediately and call the 1-800 number on the Emergency Notification System (ENS) sign to report the car on the tracks.

**Answer:** The correct answer is C. Why? Not being able to see or hear any signs of an oncoming train doesn't mean you have enough time to restart the car and drive away. In fact, by the time you can see or hear a train, you may not have enough time to get out of the car and a safe distance away from the tracks before the train strikes the stalled car and you. Any time spent inside a car stalled on train tracks is a risk. The safe choice is to exit the car immediately, and call the 1-800 number on the blue Emergency Notification System sign to report the car stalled on the tracks. This will allow the engineer of any approaching trains to be notified so they can attempt to stop before they reach the crossing where the car is stalled. Immediately report the incident using the numbers on the Emergency Notification System (ENS) sign.

### **When is it ok to start across the tracks?**

You're on your way to a school football game. There's a railroad crossing you must drive over close to school. A long line of slow-moving cars is backed-up from the parking lot all the way to the crossing. The car in front of you drives across the tracks. Where does that car need to be before you can safely begin to drive through the crossing yourself?

- a) The car is on the tracks,
- b) The car has just cleared the tracks
- c) The rear bumper of that car is 15 feet beyond the tracks
- d) The car leaves enough room for your car to be 15 feet beyond the tracks

**Answer:** D. You should only begin crossing once you are sure you will have enough space for your entire vehicle to pass 15 feet or more beyond the far track. Any closer, and you might find yourself stuck in traffic in a dangerous location.

- **Experiential Extension** - What does 15' look/feel like? Have students "walk" this out, exploring how much space is required around them if their bodies are the boundaries of their "cars."

### The Long Wait

You come to a crossing. The gates are down, red lights are flashing and bells are ringing. You come to a stop at the stop line 15 feet before the track, and wait. And wait. And wait. You've listened to three whole songs. No train has passed. You look in both directions along the tracks, and don't see any sign of an oncoming train. You turn your radio off and listen, but don't hear a train horn or any other sounds to indicate an approaching train. You:

- a) Continue to wait. Some train crossing warning systems can be activated for a long time before a train arrives at the crossing.
- b) Suspect that the gate, lights and bells may be malfunctioning, and—after looking and listening again to make sure you don't see or hear any indication of a train coming—drive around the gates and through the crossing.
- c) Suspect that the gate, lights and bells may be malfunctioning, and carefully turn around and find an alternate route.
- d) Suspect that the gate, lights and bells may be malfunctioning, and call the number on the Emergency Notification System sign to speak with a dispatcher.

**Answer:** A or C or D. It is NEVER ok to drive around lowered gates! Doing so is illegal and could result in a devastating collision. Railroad crossing warning systems can be active for a long time before a train arrives at the crossing. If you think gates, lights or bells might be malfunctioning, you can find another route and/or call the Emergency Notification System number, but NEVER drive around the gates.

### Crossing Questions, Revisited

Ask students to return to the piece of paper on which they answered questions at the beginning of the lesson. Read each question aloud, inviting the students to answer them, and correcting or augmenting their responses with additional safety information/question prompts as follows:

1. If the pavement approaching a railroad crossing isn't marked with a stop line, what is the minimum distance before the track at which should you come to a complete stop?

**Answer: 15 ft**

2. True or False: About half of all vehicle/train collisions occur at crossings with flashing red lights, bells, or gates.

**Answer: True.** Amazingly, crossings with flashing lights, bells and/or gates that alert drivers to an oncoming train are the sites of almost half of vehicle/train collisions. Why do you think this might be the case? (trying to beat a train, driving around a lowered gate, driving under a closing/raising gate, distracted: crashing through the gate).

3. A car stops for a passing train, and quickly pulls forward to cross the track once the train has passed—only to be struck by a different train coming from the other direction. How did this happen?

**Answer: This crossing has multiple tracks.** The driver may not have realized this, and assumed that once the (first) train had gone past it would be safe to cross. Or, the driver may have realized that there

were multiple tracks, but didn't wait long enough for the passing train to leave the crossing and provide a clear line of sight down the tracks—the departing train may have hidden the approaching train from view. You must always wait until you have a clear, long line of sight down the tracks in both directions. Once you do, look and listen for another train before driving over the crossing.

4. True or False: You should never shift gears while driving over a railroad crossing.

**Answer: True.** Shifting gears can lead to stalling. Shift to a low gear *before* you begin to drive over the crossing.

## Crossing Scenarios

### Rear-End Risk

You are approaching a railroad crossing that you drive through daily. You know it's marked by a crossbuck with yield sign. The visibility along the tracks in both directions is very good. As you approach the crossing, you cannot see or hear a train coming. Yet, the vehicle in front of you comes to a complete stop 15' before the tracks. You quickly brake to avoid rear-ending this vehicle. (It's a good thing you were driving at the speed limit and were traveling at a safe following distance!) Why did the vehicle in front of you come to a stop?

### Stalled on the Tracks

Three friends are driving in a manual shift car. As they cross the tracks, the driver shifts gears and the car stalls. They hear the sound of a train horn in the distance, approaching from their right. They get out of the car immediately. Each friend runs away from the car stalled on the tracks in a different direction. Which friend has chosen the safest path and why?

- a) is running away from the train and tracks at a 45° angle
- b) is running away from the car, perpendicular to the tracks
- c) is running toward the oncoming train but away from the tracks at a 45° angle

If there were no signs of an approaching train when the car stalled, should they:

- a) Try to restart the car so they can drive off the tracks?
- b) Put the car in neutral and try to push it off the tracks?
- c) Get out of the car and away from the tracks immediately and call the 1-800 number on the Emergency Notification System (ENS) sign to report the car on the tracks.

### When is it ok to start across the tracks?

You're on your way to a school football game. There's a railroad crossing you must drive over close to school. A long line of slow-moving cars is backed-up from the parking lot all the way to the crossing. The car in front of you drives across the tracks. Where does that car need to be before you can safely begin to drive through the crossing yourself?

- a) The car is on the tracks
- b) The car has just cleared the tracks
- c) The rear bumper of that car is 15 feet beyond the tracks
- d) The car leaves enough room for your car to be 15 feet beyond the tracks

**The Long Wait** You come to a crossing. The gates are down, red lights are flashing and bells are ringing. You come to a stop at the stop line 15 feet before the track, and wait. And wait. And wait. You've listened to three whole songs. No train has passed. You look in both directions along the tracks, and don't see any sign of an oncoming train. You turn your radio off and listen, but don't hear a train horn or any other sounds to indicate an approaching train. You:

- a) Continue to wait. Some train crossing warning systems can be activated for a long time before a train arrives at the crossing.
- b) Suspect that the gate, lights and bells may be malfunctioning, and—after looking and listening again to make sure you don't see or hear any indication of a train coming—drive around the gates and through the crossing.
- c) Suspect that the gate, lights and bells may be malfunctioning, and carefully turn around and find an alternate route.
- d) Suspect that the gate, lights and bells may be malfunctioning, and call the number on the Emergency Notification System sign to speak with a dispatcher.