Chapter 13

Handling Emergencies

13.1 Vehicle Malfunctions

13.2 Driver Errors

13.3 Roadway Hazards

13.4 Collisions

Vehicle Malfunctions

- Proper maintenance can prevent most vehicle malfunctions
- When your vehicle gives you warning signs make the necessary repairs

TIRE FAILURE

Changing a Tire

Even if you are an auto club member, you should know how to change a tire. Tire-changing instructions are included in the owner's manual for your vehicle. Practice changing a tire in a safe place.

To change a tire, you will need a **jack**, a hand-operated device used to lift and hold one corner or side of the vehicle. An elevated vehicle might slip off a jack. Never put yourself in a position where the vehicle could fall on you.

Follow these steps to change a tire:

1. Park on a level area away from traffic. Turn on the hazard flashers. Put the selector lever in PARK; use REVERSE in a stick-shift vehicle.
2. Set the parking brake.
3. Block the wheel that is diagonally opposite the flat tire. Carry two blocks of wood or two bricks in your trunk for this purpose. Place one block in front of the wheel and another block firmly behind the wheel. Blocking helps keep the vehicle from rolling once it is raised up by the jack.
4. Ask your passengers to get out of the vehicle and move to a safe place away from the roadway.
5. Take out the spare tire, jack, and lug wrench.
6. Assemble the jack. Position it under the vehicle.
7. Jack up the vehicle partway. The flat tire should touch the ground so that the wheel cannot turn.
8. Remove the wheel cover. Loosen the **lug nuts**, the devices that hold the wheel to the vehicle.
9. Jack up the vehicle until the tire completely clears the ground.
10. Use the lug wrench to remove the lug nuts. Place them in a safe place, such as your pocket.
11. Remove the wheel with the flat tire. Place the wheel to the side.
12. Mount the wheel with the spare tire. Rock it gently into position.
13. Replace and tighten the lug nuts.
14. Lower the vehicle slowly and remove the jack.
15. Use the lug wrench to tighten all the lug nuts again.
16. Leave the wheel cover off as a reminder to fix the flat. Put the wheel cover, flat tire, and tire changing equipment into the trunk. Remove the blocks.

Replace or repair the flat tire as soon as possible. If your spare tire is a temporary or compact spare, drive on it only as necessary under the manufacturer's conditions of its use.

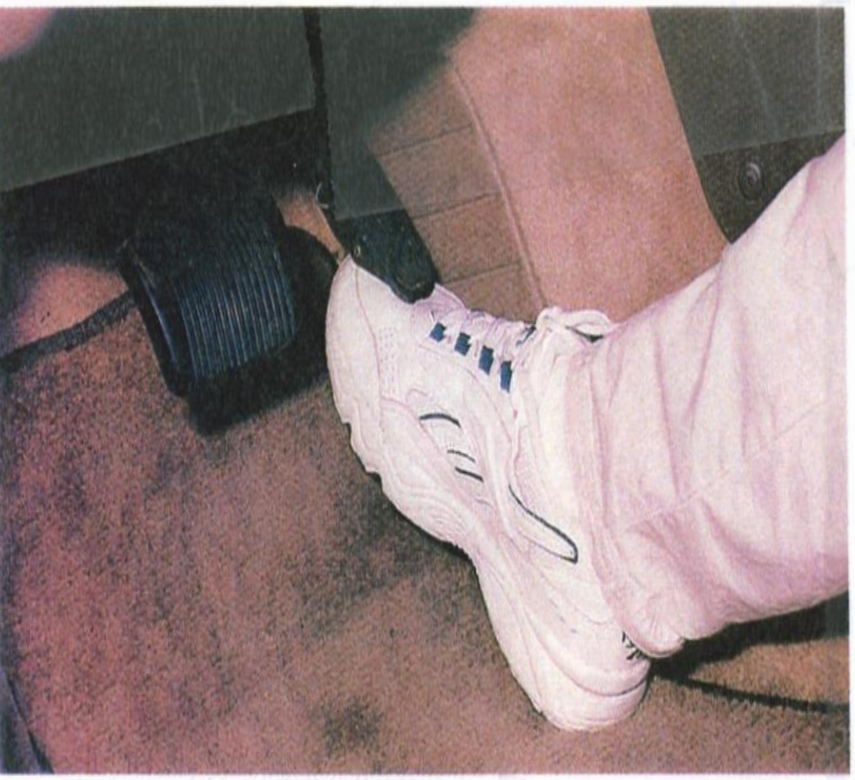
- If you do not know how to change a tire, instructions can be found in the owners manual or in the spare tire compartment.

Total Brake Failure

Total brake failure rarely happens. When it does follow these steps –

1. **Pump brake pedal**
2. **Downshift to a lower gear**
3. **Apply the parking brake**
4. **Search for an open zone. Steer. As a last resort rub the wheels against a curb to reduce speed. If a collision is unavoidable steer for a sideswipe rather than a head-on collision.**

Accelerator Malfunctions



While stopped or driving in light traffic, you can try to free a stuck accelerator by putting your toe under it and lifting.

Stuck Accelerator

1. Try to jar accelerator free
2. Apply brakes
3. Choose an escape path that leads to an open zone off the road way. Continue braking
4. If steering into a sharp curve or turn, shift to neutral .
5. Follow escape path off the roadway
6. Turn off ignition once off the roadway

Never reach down with your hand to lift the pedal while driving

Engine Failure

1. Shift to neutral
2. Begin moving out of traffic to nearest shoulder
3. Try to restart the engine while you are moving. If car starts, put in gear and proceed. If car does not start, move to the shoulder. Steering will be harder when power is lost by engine failure.
4. If car still does not start, turn on hazard flashers. Go for help.

FLOODED ENGINE

- You have made the mixture to fuel rich and must balance it with more air.
- Push accelerator all the way to the floor and attempt to restart the engine.
- Take care not to run the battery down.

ENGINE OVERHEATING

- Turn off the air and turn on the heater.
- Shift to neutral at stops and accelerate slowly.
- If temperature light is on and stays on, pull over and turn off the car.
- Do not add fluid until engine is cooled off.

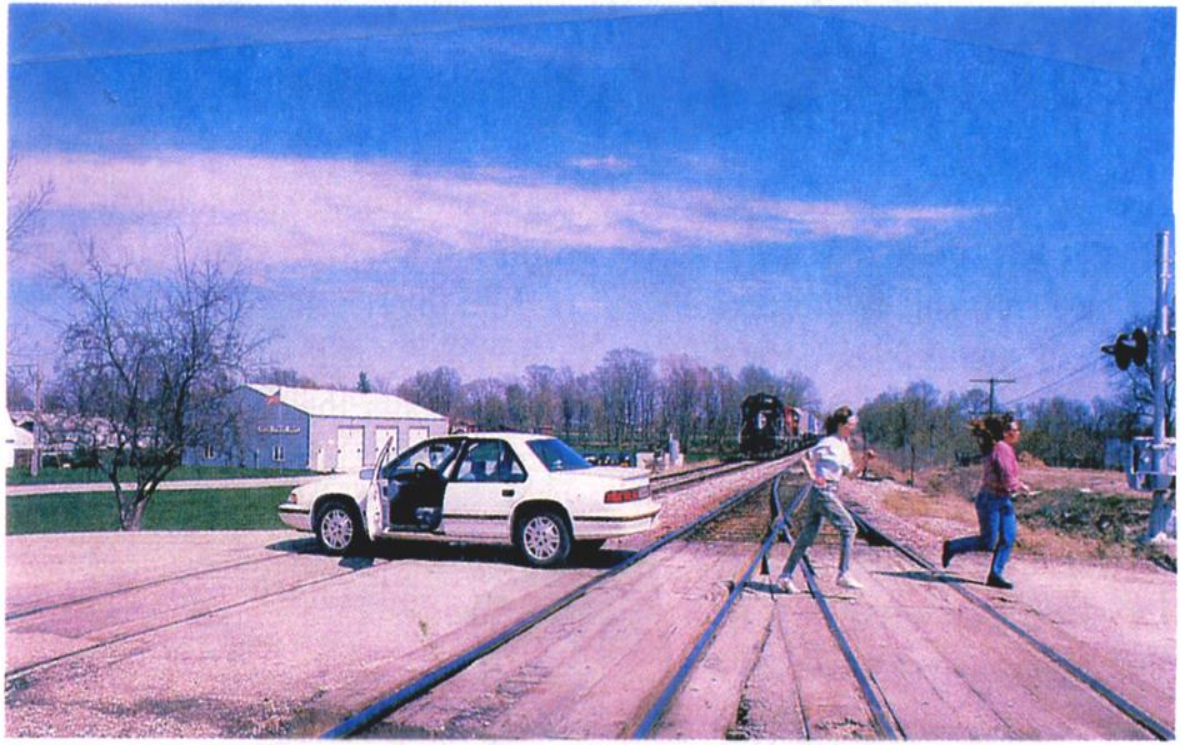
If your hood flies up, look through the space below the open hood and steer to a safe place.

Do not open the hood if smoke is coming from under it.

Vehicle Stalls on Railroad Tracks

Weather, driver, or roadway conditions may cause a vehicle's engine to stall while crossing railroad tracks. Take these actions if your vehicle stalls on the tracks:

1. Check carefully to be sure no train is coming. Try to restart the vehicle. If the engine floods, hold the accelerator to the floor as you restart the engine.
2. If you cannot restart the engine, have passengers leave the vehicle. Have one passenger watch for trains, and ask others to help you.
3. Shift to NEUTRAL and push the vehicle off the tracks.
4. If you have a stickshift vehicle, shift to FIRST or REVERSE, let the clutch out, and turn the ignition to "Start."
5. If a train is coming, abandon your vehicle. Move away from the tracks in the direction the train is approaching. This helps you avoid injury from flying fragments.



Straddle the roadway edge.

Turn sharply to get back on the pavement.

Countersteer when the front tire reaches the roadway.

Off-Road Recovery

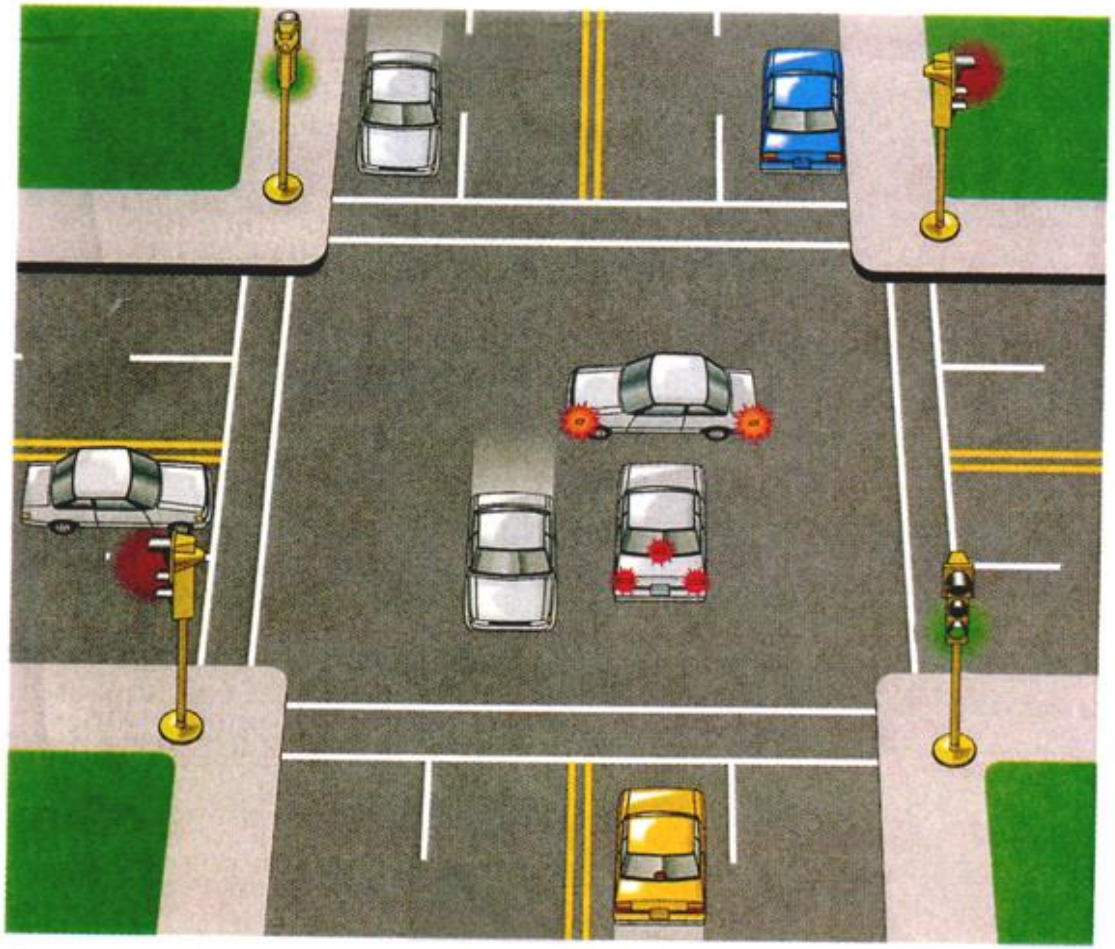
Emergency Swerving

Swerving is a last-second emergency means of avoiding a collision. Swerve only when you believe that braking will not prevent a collision. At speeds over 30 mph, you can usually swerve to a new path in less distance than the distance you needed to stop safely.

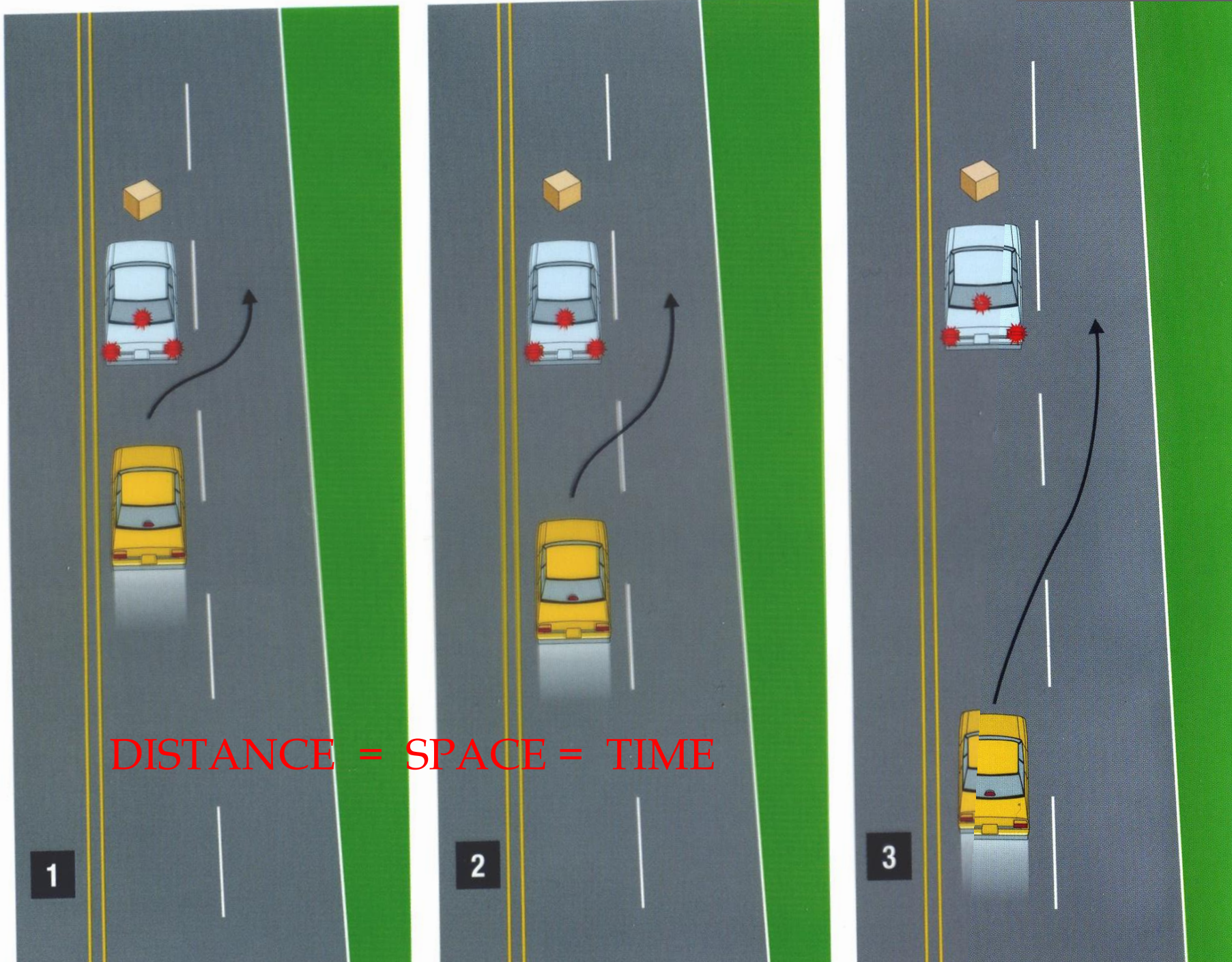
The Stop-Swerve Decision

The picture below shows a dangerous situation. The driver of the yellow vehicle might hit the brakes to stop. In some situations, this action will be the only choice. However, if the driver hits and locks the brakes, the vehicle might slide into the vehicle ahead. When moving at 30 mph or more, the traction created by the vehicle's tires can turn the vehicle sideways faster than braking traction can stop it.

When deciding whether to swerve around an object, be sure that no other vehicle is in the lane that you will enter.



Should the driver of the yellow car stop or swerve?


DISTANCE = SPACE = TIME
1
2
3

What to do After an Accident

1 .Stop

- Stop as close to the scene without blocking traffic
- If traffic is not blocked leave vehicles in place

What to do After an Accident

2. Provide aid to the injured

- Send for help/Call Police
- Do not move the victim
- Administer basic first aid

Good Samaritan law

What to do After an Accident

3. Prevent Further Damage
- Turn engine off
- Warn oncoming traffic

What to do After an Accident

4. Send for Police
   - Serious injury/Death

What to do After an Accident

5. Exchange information

- Show license
- Exchange: Name, Drivers license Number, license Plate Number, and Insurance Information
- Other information