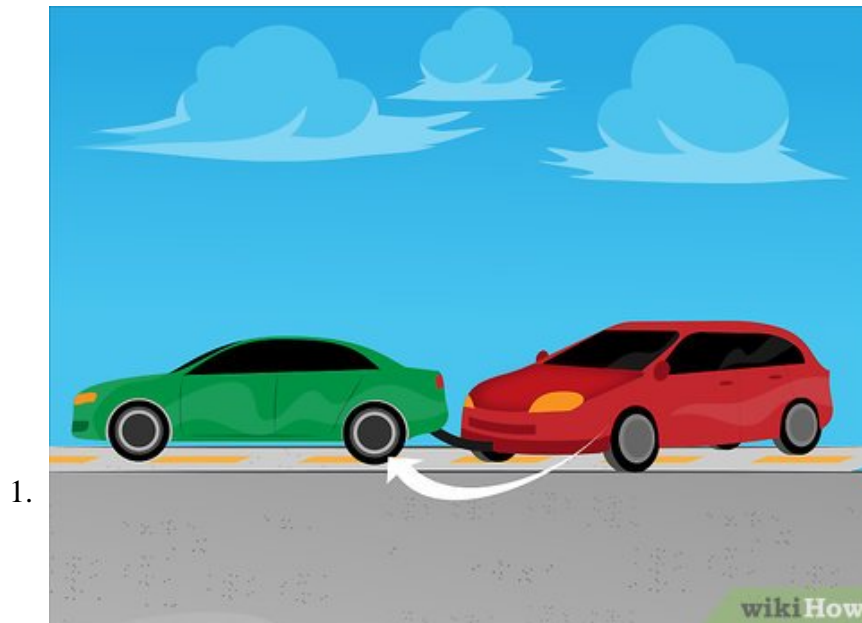


How to Avoid Jackknifing

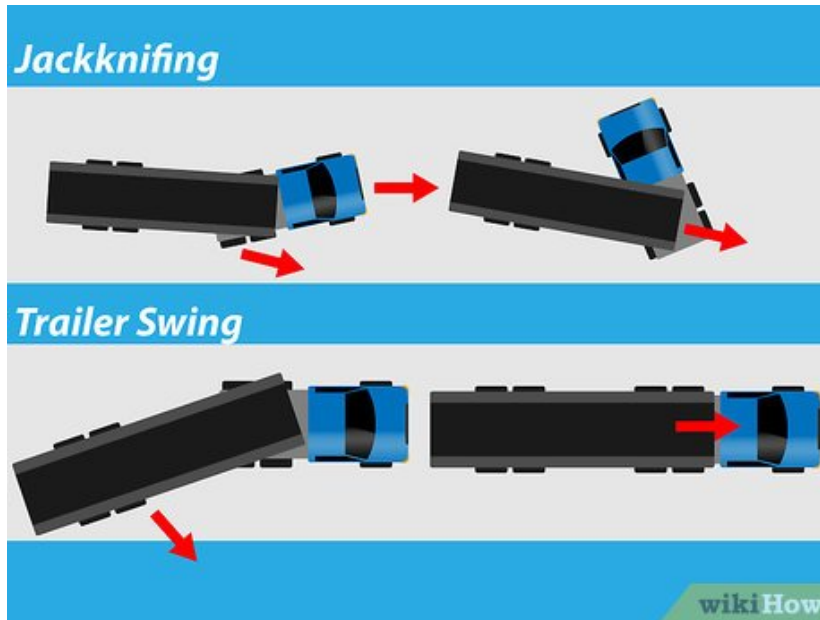
Jackknifing occurs when a vehicle towing a trailer skids and its trailer pushing from behind spins it around until it collides with its own trailer. The jack knifed vehicle could then continue out of control causing further accidents. Here...

Method 1 of 2:

Understand Jackknifing



Understand what causes jackknifing. Jackknifing occurs when the **towing vehicle** skids. If the driver is unable to correct it in time, the trailer pushing from behind will continue to push the towing vehicle until it spins around.



Understand that jackknifing is different from trailer slew or trailer swing. Here's the difference:

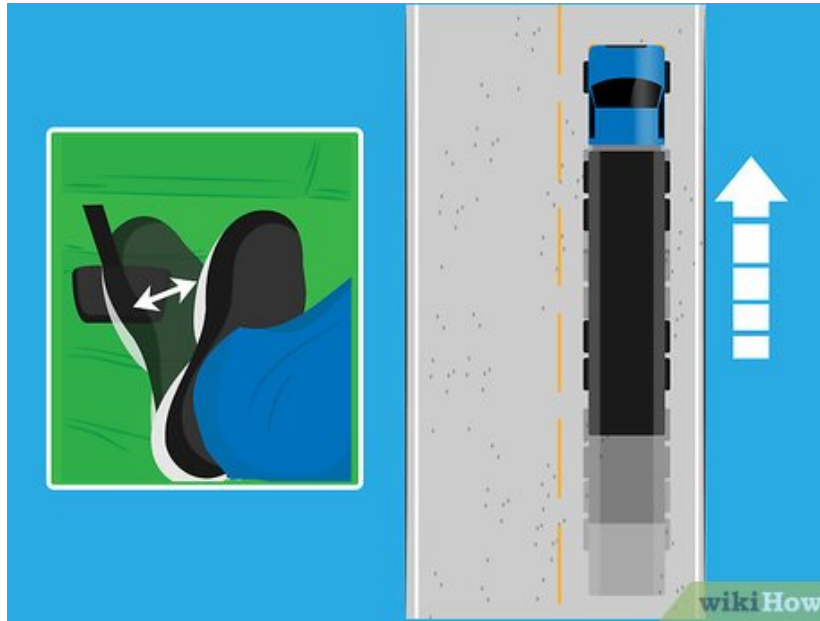
Method 2 of 2:

Prevent Jackknifing



Be wary of light loads. A heavily laden vehicle is unlikely to jackknife. Jackknifing usually occurs with empty trailers or when the weight of the load is badly distributed, providing too little traction where it's needed. The vehicle and trailer brakes are designed for a full load, and are far too powerful for an underweight trailer. When strong brakes are applied, the wheels could lock up, and cause skidding.^[1]

2.



Spread your braking over the longest possible distance, braking progressively and reducing your speed gradually. It helps to drive a safe distance behind other vehicles and to try to anticipate what may happen ahead, allowing yourself plenty of time to pull up, especially on slippery roads and when you're going downhill.^[2]

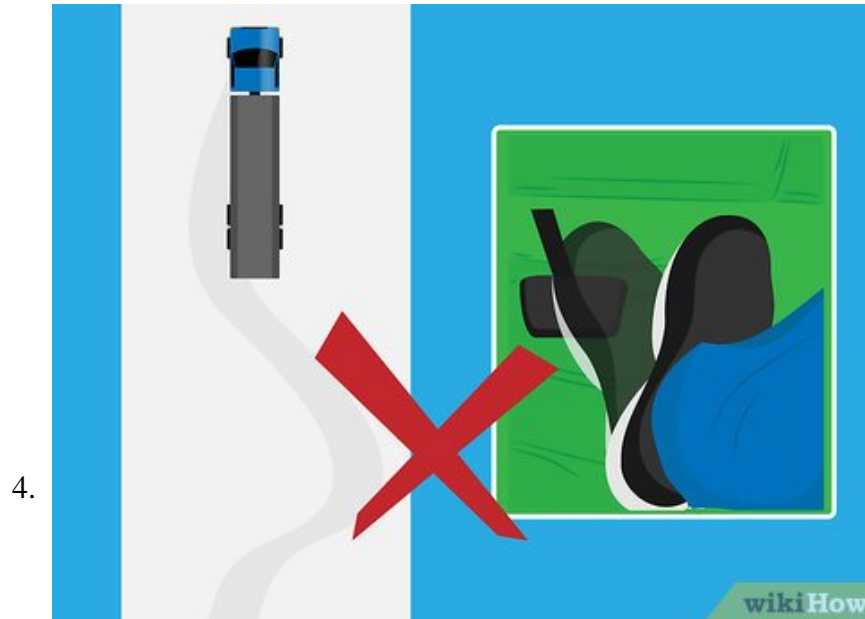
3.



Avoid having to brake or even decelerate on a curve. Apply your brakes while the vehicle is traveling in a straight line as you approach a curve. Slow down a little more than necessary, then release your brakes before you begin the turn. Apply a little power as you turn. This should prevent the drive wheels from losing traction. If you approach slowly enough, you'll find that you'll be able to speed up as you negotiate the curve.^[3]

1. Downhill turns are especially prone to jackknifing. If you're going down a steep hill and wish to turn off to the left or right, don't assume that the trailer will follow you. The trailer tries to continue straight on down the hill due to its momentum and gravity. You must slow it right down or even

come to a halt before turning. When you're satisfied that you've checked the trailer's momentum, then you can **pull** it around the corner.



If you ever need to take avoiding action, don't brake and swerve at the same time. Brake first to slow the vehicle down as much as possible, then release the brakes in order to swerve. In this way, you'll remain in control of the vehicle. Once you've swerved, you can re-apply the brakes if necessary.^[4]

1. If you ever need to do an emergency stop, for example, if a child runs into the road in front of your truck, don't stamp on the brake pedal. You should press it. Then press the clutch pedal to prevent the truck from traveling further. Hold the steering wheel with your hands in the 10 minutes to 2 position, keeping your thumbs out of the wheel. Press them against the rim, and lock your elbows inward.



Be very cautious about using your engine brake or retarder (exhaust brake / Jacobs brake / Telma / Voith etc.) on a slippery surface. This could lock up the drive axle and cause jackknifing. An engine brake

or retarder only acts on one axle, whereas the brakes act on all of the wheels. If you need to use the retarder to descend a hill, but the road is slippery, slow the vehicle down by braking gently first, then apply the retarder carefully. The same would apply if you were to engage a low gear.



Jackknifing starts as a skid, so do your utmost to avoid skidding. If, however, your vehicle starts to skid, take your foot off the brake immediately and correct the skid as you would with a rigid vehicle [How to Control a Skidding Car](#). If it isn't corrected, it will be aggravated by the trailer pushing from behind and the vehicle will jackknife.^[5]



Keep both tractor and trailer properly maintained. Uneven brakes, worn tires and faulty suspension components increase the risk of losing control.

8.



Modern anti-lock braking systems, first developed for aircraft to stop them skidding on the runway, are now fitted to heavy vehicles. They can sense tire skid and automatically adjust braking force to prevent wheel lockup.^[6]

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