

Changing a Standard Car Tire

Estimated Time: 20 minutes

Tools Needed: Lug Wrench, Car Jack, Spare Tire

Introduction

Potholes, nails, and loose scraps can cause one of the most common, unfortunate events to happen to any driver on the road- a flat tire. These types of on-road incidents occur due to the pressure being lost in one of your car tires to the point that it is simply unusable. Driving on one of these flats can cause damage to the rim of your tire, axle, and body of your car, so you'll want to get these pesky issues fixed as soon as possible.

Pre-Change

So, you're driving down the road when all of a sudden, you hear a pop and a loud rumbling sound as your car bounces up and down slightly. This signifies a flat tire. Upon pulling over, there are a few things that you should consider before you start this process.

1. First, make sure you're completely off the road and out of danger before exiting your car. **Multiple people are hit road-side each year** as they forget that they are walking around on the side of a busy highway or street.
2. Next, make sure the car is in park and your flashers are on. This will keep you safe and can sometimes attract help from passing officers or tow trucks.



The typical button to turn on your flashers



A very safe distance from the road

3. Now, check your car (trunk, wheel well, beneath seats) for the three objects necessary to change the tire- a lug wrench, car jack, and of course, another tire that's ready to be put on.

4. If you're missing any of the objects from above, you should consider calling AAA or a tow service. If you're missing the spare tire, you'll need to be towed to the nearest tire shop to buy one before you change it.

Changing the Tire

Now a safe distance from the road with all your materials, get out of the car and pinpoint the tire that's gone flat. The following process can be broken up into three main parts: elevating the car with the car jack, removing the flat with the lug wrench, and attaching the spare before setting the car back on the ground.

Step 1: Jacking up the Car

1. Make sure the car is on as flat as ground as possible. This will prevent potential incidents of your car rolling away. Many people like to turn on their parking brake as well as place small, heavy objects (rocks, bricks) near the tires to prevent them from rolling when the car is lifted.
2. Now, find the small metal part under the car located beside the tire and under the door. The image below shows where to find the jack point on your vehicle.



(From wikihow.com) Typical locations of a car's jack point

3. Find the jack point and place the car jack so that the metal piece of the jack is directly facing the metal of the jack point.

4. Now that the jack is positioned, use the cranking mechanism that came with the jack to lift up the car. This is done by correctly attaching it (for jacks that come in two pieces) and slowly spinning it clockwise so that the jack begins to move upwards. This will force the car to raise, giving you space to make the change.

Your car will be raised throughout the rest of the process until you finish tightening on the new replacement tire.

Step 2: Removing the Flat

1. With the car in position and armed with your lug wrench, you can now begin to remove the lug nuts that attach the rubber of the wheel to the metal. Pictured below are the lug nuts that you must remove so that you can take the tire off.



(From 2carpros.com) A tire with six lug nuts

2. After locating these lug nuts, use the lug wrench to twist them clockwise, loosening their grip on the wheel. Do this for all the lug nuts on the flat tire, keeping track of each one as they fall off, as you'll need them to attach the new tire.
3. When finished, you should be able to lift the tire off and place it in the position of the replacement tire that you'll now be driving.

Step 3: Attaching the New Tire

This next set of steps is very similar to the previous set, except you'll simply be attaching the new tire in the reverse fashion you removed the flat.

1. After carefully positioning the tire so that it looks like all of the other wheels, you'll be able to see where the lugnuts go back on to attach the new wheel.
2. Now use the lug wrench to attach each nut as tightly as possible back onto the rim. You should be able to put your body weight on the wrench and have it not be able to turn.
3. Once the tire has been attached, throw the old tire in the back of your car with the lug wrench and carefully lower the car jack, placing it back inside your car as well.
4. Now drive off. If you start to feel problems with that tire, such as during turns or on bumpy roads, take it into your mechanic.