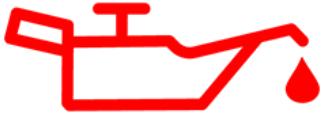


# How to Change Your Oil



Changing your oil is a very simple process that everyone should know how to do, especially since it's such a crucial part of properly maintaining your vehicle.

## What to Expect:

- Experience level: Beginner
- Time to complete: ~60-90 minutes

**DISCLAIMER:** Please read every instruction before beginning. Make sure to complete each step in order.

## Contents:

---

● Prep for Oil Change	1
● Step-by-step Guide	2
○ Step 1: Jack Up Your Vehicle	2
○ Step 2: Remove the oil cap	3
○ Step 3: Get under the vehicle and drain oil	3
○ Step 4: Remove Oil Filter	4
○ Step 5: Install plug and filter	4
○ Step 6: Add the oil	5
○ Step 7: Check oil level	6
○ Step 8: Check for leaks	7
○ Extra Step: Resetting change oil/check engine light	7
○ Disposal:	8

# Prep for Oil Change:

---

## Things to research before beginning:

- What kind of oil your vehicle takes
  - Conventional, synthetic blend, or full synthetic.
  - Most vehicles today only take full synthetic oil.
  - Check your vehicle's owner's manual or you can simply search for what kind of oil your vehicle takes.
- How much oil your car takes
  - It's important to know your vehicle's oil capacity.
  - Too little oil can cause friction and overheating.
  - Too much oil can cause your engine to not perform at its best and cause hydro-locking.
    - Hydro-locking is when a liquid enters the piston chamber, causing it to malfunction.
  - This can be found online or in your vehicle's manual.
- The oil filter that is best for your vehicle.
- The jack locations on your vehicle.

## Now gather the necessary materials:

- Oil, from research
- Oil filter, from research
- Oil drain pan
- Floor jack and 4 jack stands
  - Or 2 jack stands and 2 ramps.
  - \*if needed\*
- Basic ratchet and socket set or wrench for oil pan drain plug
- Oil filter wrench/pliers
- Latex gloves(or any similar latex-free gloves)
  - \*the oil may still be hot
- Funnel
- Paper towels
- Optional but recommended materials:
  - Flashlight (if possible a magnetic flashlight is very helpful when working on a car)
  - Creeper (low platform on wheels that make getting under the much easier)

# Changing the Oil: Step-by-Step Guide

## **!SAFETY DISCLAIMERS!:**

- Don't start changing your oil right after driving your vehicle. The engine and the underbody components are still hot. Let it cool off for about 20 minutes.
- The oil may still be hot after 20 minutes. **WEAR THE GLOVES!**
- Be cautious when lifting your vehicle.
- **NEVER WORK UNDER A CAR THAT IS ONLY SUPPORTED BY A FLOOR JACK.**

## **Step 1: Jack Up Your Vehicle**

\*Please refer to the safety disclaimers above.

\*If your vehicle is high enough off the ground that you can get under without lifting then disregard this step.

- Refer to the jack locations found in your research.
- Lift the front of your vehicle with the floor jack.
- Make sure that all 4 jack stands are set to the same height
- Make sure you lift high enough to securely place your jack stands under a part of the vehicle that is solid metal. **Refer to Figure 1 for example.**

- **DISCLAIMER:** DO NOT LEAVE THE CAR JACKS UNDER ANY PART OF YOUR CAR THAT IS NOT SOLID METAL. THIS COULD CAUSE DAMAGE.

Figure 1: Properly lifted car



- Lower and remove the floor jack
- Do the same thing for the back of your vehicle
- If you are using ramps that's ok just make sure they are high enough to get under, the jack stands for the back wheels are level, and the vehicle is set on them safely.
- **Notice:** Car must be level for all oil to drain. **Before moving on, make sure your car is set securely on the jack stands.**

## Step 2: Remove the oil cap

- Open the hood and remove the oil cap.
- Keep it somewhere that you won't lose it.
- This allows the oil to drain more easily.
- Refer to Figure 2 for example.



Figure 2

## Step 3: Get under the vehicle and drain oil

- Get under the car and locate your oil pan and oil filter.
  - **Notice:** When under your vehicle, check for any leaks. If there is a leak, it would be best to take it to a mechanic.
- Place the oil drain pan in a position to catch the falling oil without making a mess.
  - Any container that could hold at least 3 gallons should suffice. Most cars contain a gallon of oil in the engine.
- Loosen the drain plug by unscrewing it with a ratchet or wrench that fits the nut.
- Hold on to the plug as you are unscrewing it so it doesn't fall into the oil.
- Let the oil drain for 5 minutes or until no more oil is flowing out
- Refer to the "Disposal" section for information on what to do with the old oil. For now, just move the oil drain pan to where it's out of the way without spilling it.

Figure 3: Typical oil pan and drain plug position.

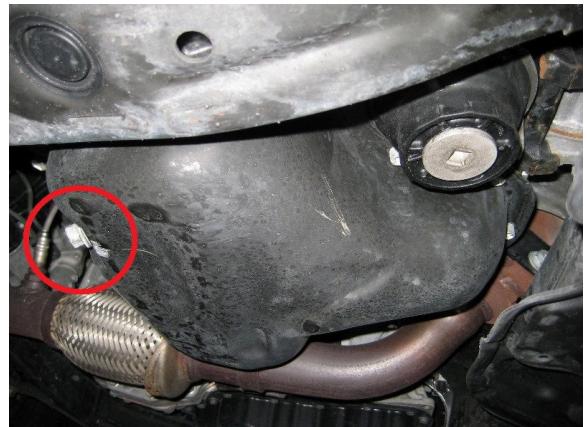




Figure 4: Typical oil filter

## Step 4: Remove Oil Filter

- Once the oil has completely finished draining, move the oil pan under the oil filter.
- Using the oil filter wrench or oil filter pliers, remove the oil filter and let the excess oil drain into the pan.
- Check to make sure the old oil filter gasket(a small rubber ring) wasn't left on the oil filter housing. If the old gasket is still on the housing, it would prevent the new filter from properly sealing.
- Notice:** Do not throw away old filter.
- Wipe off any surfaces that are covered in oil.

## Step 5: Install plug and filter

- Once all the oil has been drained, replace the drain plug by hand until it's snug. Then using the ratchet or wrench, complete a half turn.
  - Screwing the plug too tight could cause damage to the oil pan.
- Before installing the new oil filter, apply a thin layer of oil around the seal of the filter with your finger. This helps create a better seal as you tighten the filter.
- Install the new oil filter the same way as the plug but using the oil filter wrench/pliers.

## Step 6: Add the oil

- Once the oil drain plug and oil filter are properly installed, lower the car from the jack stands.
  - Pump up the floor jack till it's right under the front of the car and lift some more so that the car is lifted above the jack stands.
  - Remove the jack stands and then lower the car safely.
  - Repeat the same process for the back.
  - **DISCLAIMER:** make sure to lower the car slowly and safely.  
You don't want to damage the car.
- Using the funnel, pour the right amount of oil into the oil intake of the engine.
- Close the oil cap.

Figure 5: Pouring the oil into the engine



## Step 7: Check oil level

- Once the oil is poured into the engine, wait about 5 minutes for the oil to settle into the engine.
- Then start the vehicle and just let it run to get the oil circulating. Pull the dipstick from the tube, wipe off the oil, and then reinsert it.
- After the engine has been running for about 2 minutes, pull out the dipstick again and confirm that the oil on the stick is at the full line. **Refer to Figure 6.**
  - If not turn off the car and add a little more oil.
  - Keep doing this until the dipstick says full.
  - Reinsert the dipstick after each check.

Figure 6: What dipstick should look like when oil is full



## **Step 8: Check for leaks**

- Keep the engine running for a few minutes. Let it get warmed up.
- While it's running, look under the car for any leaks. Make sure to check near the plug and the oil filter.

## **Extra Step: Resetting change oil/check engine light**

- If the change oil light is still on after refer to the vehicle's manual for information on how to reset it.
  - Usually, you just need to disconnect and reconnect your battery.
- If the check engine light is still on, it could be for a couple of reasons:
  - The same reason as the oil change light and if that's the case then it should reset the same way as the change oil light.
  - There's something else wrong with your car. If that's the case then you should definitely take it to a professional.

**\*Refer to next page for proper disposal. →**

## **Disposal:**

---

It is important to properly dispose of your old motor oil when finished changing your oil. Motor oil picks up a lot of toxic waste during its use. Improper Disposal can be harmful to the environment, including humans.

Research any local recycling centers near you that take old motor oil. Additionally, most auto parts stores will also take your used oil. These are places like Auto Zone, O'Riley, or even some Walmarts.

Make sure to transfer your old oil into a leak-proof container that won't spill before returning your oil.

Oil filters are also recyclable. Puncture a small hole in the side to let any excess oil drain out. Make sure to put this in the same container with all the other oil. Seal it in a plastic bag.

---

Congratulations! You have just changed your oil by yourself. And you probably saved some good money doing so. If this felt good try learning how to fix something else on your vehicle on your own.