

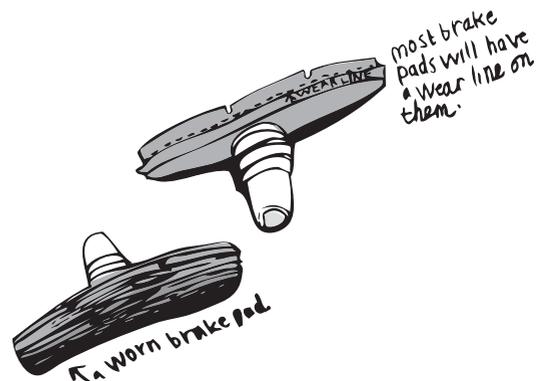
- Hold the cable tight whilst screwing the fixing bolt back up again
- Then screw the barrel adjuster all the way in.
This should leave the brake blocks a few millimetres away from the rim, giving quick and responsive braking.

Don't worry if you follow these instructions and the adjustment is not perfect. This is not an exact science and sometimes you'll have to loosen or tighten the cable a bit more to get things just right.

Things to look out for: badly frayed or rusted cable should be replaced.

Replacing Brake Blocks

Brake blocks usually have a wear line indicator, but a good guide for knowing when to replace them is when the grip has worn out and definitely before you get down to the metal!



To replace your brake blocks:

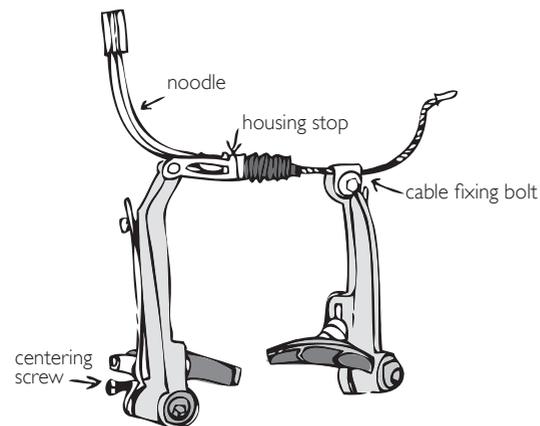
- Release the brakes from the cable tension:
- With **V-brakes** push both arms together and release the L-shaped metal thingy (officially called a "noodle") from the housing stop - see diagram on the front of this leaflet for where this is. The brakes should spring open.
- With **Cantilever** brakes squeeze the brake arms together and release the end of the straddle cable with the metal knobble on.
- With **Caliper** brakes unscrew the cable fixing bolt. Most newer Caliper brakes have a quick release fixing bolt which is helpful.
- Once you've released the brakes, unscrew the nut that holds the brake blocks in place
- Replace with new brake blocks (ensuring you keep the nuts and washers in the same order as they were on the old blocks), reconnect the brake cable, then adjust and tighten as explained previously.

Things to look out for: Each different kind of brake has different brake blocks, be sure to replace with the right type of blocks for the braking system.

A Guide to Adjusting Brakes

How Brakes Work:

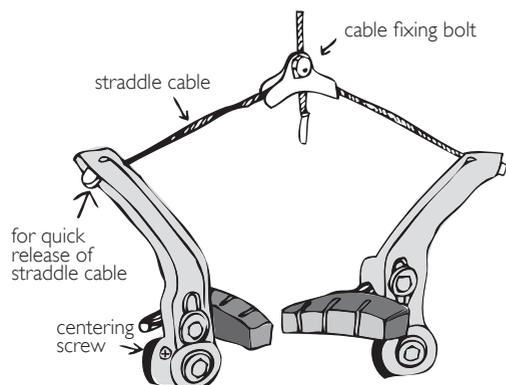
When you pull the brake lever, the force of you squeezing is transferred down the brake cable and into the brake arms, moving the brake arms and applying the brake pad onto the rim. The pads clamp onto the rim, stopping the wheel from spinning.



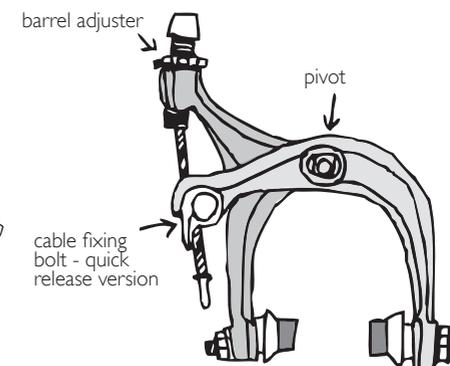
V-BRAKES
(aka direct pull cantilever)

Brakes need adjusting every now and again, because brake cable stretches and brake pads wear down or need replacing.

There are three different types of braking systems on bicycles: Caliper, Cantilever and V-type brakes.

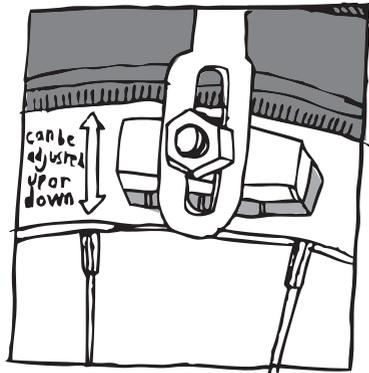


CANTILEVER BRAKES



CALIPER BRAKES
(side pull variation)

Adjusting Brake Block Position



To get maximum braking effectiveness and to make the brake blocks last longer it's important that the brake blocks touch the rims in the right place when the brake is applied.

Brake Block Alignment:

The brake blocks should be in the centre of your rim. Not partially or wholly above the rim where you risk them rubbing against the tyre, or hanging below the rim.

brake pads should sit in the centre of the rim

The blocks should be parallel to the rim not pointing downwards or upwards.

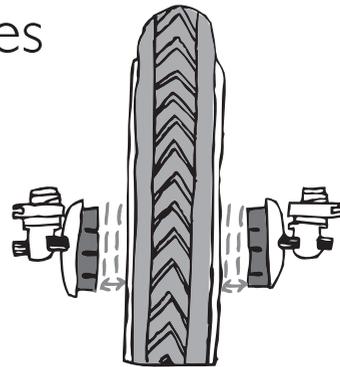
To adjust the position of your brake blocks:

On all three types of brakes you'll find the brake blocks are secured to the brake arms with a nut - this may be a standard nut that you can loosen with a spanner, or a nut which requires an allen key.

- Loosen the nut holding the block in place.
- With the brake applied (It helps to get a friend to hold on the brake you're adjusting), ensure your brake blocks are in the correct place.
- Hold the brake block firmly in place and tighten the nut in a series of short movements, rather than a long one - this makes it easier to keep the brake block in position.

Centering Brakes

Ideally there should be an equal amount of space between the brake pad and the rim on each side of the wheel. This way the wheel should spin freely without the brake blocks rubbing on one side. You can check this by looking down on the brake blocks from above.



the gap should be the same on both sides of the rim

To centre your brakes:

V-Brakes and **Cantilever** brakes (see diagram) have a centering screw which you can turn using a cross-head screw driver. Tightening this screw increases the tension on the spring inside the brake arm, moving the brake block away from the rim. Loosening the centering screw, decreases the tension on the spring, and moves the block closer towards the rim.

- Adjust the centering screw on each brake, turning it slowly and carefully until you have an equal gap between the rim and the brake pad on each side.

With **Caliper** Brakes:

- Simply grab the brake and twist the entire thing into position.

Things to look out for: *buckled wheels and a wheel that has not been inserted centrally may also cause your brakes to rub.*

Brake Cable Adjustment

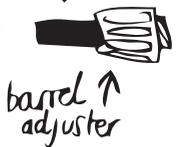
Brakes need to be effective! You should be able to fully apply the brake, stopping the bike, long before the brake levers meet the handlebars.

Brakes can be made more effective by shortening the brake cable, this increases the cable tension.

There are two ways to adjust the cable length...

Adjusting the cable using the Barrel Adjuster:

Most Barrel Adjusters can be found on the brake levers but some will be on the brake itself. Unscrewing the barrel adjuster increases the cable tension



and makes brakes more responsive. If the brakes

are too close to the rims you can screw in the barrel adjuster; this decreases the cable tension.

The barrel adjuster only allows for a limited amount of adjustment, often you need to take up more slack from the cable.

Adjusting the cable from the fixing bolt:

- On all three types of brakes loosen the cable fixing bolt (see diagrams for where this is on each type of brake).
- Unscrew the barrel adjuster about half way.
- Pull the cable nice and tight