# **Brake Pad Damage** & Causes

Damage to the brake pads can cause adverse and undesirable effects, along with accelerated brake wear and reduced performance. This pictorial guide from Bosch shows some more common damage types, along with recommendations to correct the cause of the brake pad damage.

If the cause of the abnormal wear is not corrected, the abnormal wear will continue and damage the replacement brake pads.

### Conical wear - vertical or horizontal



Causes Worn brake caliper seals and/or spring Excessive operating clearance of the caliper

Effects Premature brake pad wear Braking noise

**Recommendation** Check the brake caliper and replace if necessary Replace the brake pads

### Wear on one side only



Causes Brake caliper and/or brake caliper piston is blocked Guiding of the caliper does not work properly

**Effects** Vehicle pulls to one side during braking Faster and/or uneven brake pad wear

**Recommendation** Check the brake caliper and replace if necessary Replace the brake pads

#### Grooves and scoring in the friction material



**Causes** Dust or metal particles on the contact surface of the brake pad or brake disc

Scratches on the surface of the brake disc

**Effects** Braking noise

Vibration during braking Affected braking efficiency

**Recommendation** Check the brake disc and replace if necessary Replace the brake pads

More information on brake servicing can be seen on the Bosch Mobility YouTube channel by search for "How to change disc brakes", or by scanning the QR code on the right.



## Cracks or broken edges in the friction material



Extreme heat buildup due to constant contact Cause between the brake pad and brake disc Bending of the brake pad backing plate Brake caliper or brake caliper piston is blocked

Effects Braking noise

Vehicle pulls to one side during braking Overheating on one wheel Uneven brake pad wear

**Recommendation** Check the brake caliper and replace if necessary Replace the brake pads

