

Ask the Mechanic
Paul Kaganzi

SEND YOUR QUESTIONS TO
mycarorg.nabonnedia.com

A Q&A page wi
expert advice,

Why does my engine stall when I brake?

Hello Paul, sometimes my car stalls abruptly at low speeds when I brake hard, but it starts immediately afterwards. It happens randomly, especially in traffic. Could the idle air control valve or fuel pressure sensor be misbehaving under sudden deceleration? **Ivan**

Hello Ivan, engine stalling during deceleration or sudden braking can be unsettling and dangerous, especially in heavy traffic. Typically, engine stalling is caused by issues within one of the following systems: air intake, fuel delivery, or transmission synchronisation. When you ease off the accelerator and apply the brakes, the engine should transition quickly from a high-load state to an idle state. If this transition experiences an interruption, the engine loses the necessary force to remain running.

The most common cause of this problem is a malfunction in the air intake or airflow management system. This system regulates the quantity and quality of air entering the engine to maintain the proper air-fuel ratio required for efficient operation.

If the Idle Air Control (IAC) valve is dirty or suffering from mechanical or electrical failure, it may not open promptly enough to deliver air when the throttle closes. This hinders the engine's air supply. Similarly, a dirty Mass Air Flow (MAF) sensor can send inaccurate data about intake air volume and temperature to the engine computer, leading to an improper air-fuel mixture. As a result, the computer struggles to manage engine power and fuel efficiency, causing stalling when you abruptly apply the brakes or slow down.

NOTE
A COMPUTER DIAGNOSIS IS NEEDED

Another potential cause of engine stalling is vacuum leaks. These leaks can occur when the Brake Booster, which uses engine vacuum to assist with braking, has an internal failure. When you apply the brakes while driving, this action can allow unmetered air into the engine, disrupting the air-fuel ratio and creating a lean mixture (more air than fuel), which can lead to engine stalling.

Fuel delivery disruptions can also result in engine stalling. Faulty fuel pressure sensors or a failing fuel pump can cause fuel starvation, especially when braking suddenly.

In some cases, a faulty transmission may cause engine stalling, particularly in automatic vehicles. A malfunctioning Torque Converter may fail to 'unlock,' which can suddenly stop the engine. For those familiar with manual transmission vehicles, this is similar to stopping the car abruptly without pressing the clutch, which can also cause the engine to stall.

Electrical sensors can contribute to engine stalling when they fail. A malfunctioning Throttle Position Sensor (TPS) can delay the opening of the throttle valve needed to manage air intake. A faulty Mass Air Flow sensor may deliver incorrect information about air intake volume and temperature, preventing the engine management system from accurately determining the air-fuel ratio, resulting in unexpected power loss and stalling.

To address the issue of engine stalling when braking, start by visiting a reputable garage for a diagnosis and inspection. A computer diagnosis can confirm if you have a lean air-fuel mixture. The technician should rule out any leaks in the intake system, particularly after the air flow sensor or between the vacuum from the booster and the throttle unit. This diagnostic process requires a careful and thorough approach to quickly resolve the stalling issue.



CamScanner