

Atomizer vs. Cartomizer

No, this is *not* going to be a smack-down between two contenders for the vaping title. There cannot be a clear winner between the two, as each serves its purpose and is preferred by different vapers or even just at different times of the day. What this article *will* be is a comparison between the design, function, merits and drawbacks of atomizers and cartomizers for the electronic cigarette. New electronic cigarette users are often confused by the two options and hopefully this primer will help.

The Atomizer

Atomizers have been around since the beginnings of the electronic cigarette. An electronic cigarette that uses an [atomizer](#) and [cartridge](#) is referred to as a **three-piece** model. An atomizer works by using power supplied by the battery to vaporize liquid that comes in close contact with a [coil](#). The coil sits above a cup and wicking material and is usually protected by a mesh [bridge](#) that also transfers liquid from the cartridge. The primary variation in atomizers is in the [resistance](#) of the coil. Regular resistance atomizers are most commonly included with electronic cigarette kits. Low resistance atomizers provide warmer vapor at lower power and high resistance are made to withstand higher voltages.

Atomizers are made to work with **cartridges** that hold a reservoir of liquid. Cartridges are made to fit either inside or over the atomizer, depending on the design. 510, 801 and 901 are examples of models where cartridges fit inside of the atomizer, while 306, 401 and RN4081 are examples where the cartridge fits over the atomizer. The latter are easily recognized by the bridge sticking out above the rest of the atomizer. The cartridge typically contains an absorbent material that holds the liquid, although many new electronic cigarette cartridge designs forego the filler material and instead rely on a small hole to allow only the right amount of liquid to get to the atomizer. Cartridges come in a wide variety, ranging from the standard cartridge with filler material to the mega sized tank cartridges that hold up to 2ml of e-liquid and use no filler.

Once the cartridge is inserted into the atomizer, the liquid is transferred to the bridge and then to the coil. Many vapers enjoy the performance of an atomizer, but find that electronic cigarette cartridges do not adequately supply liquid fast enough to keep the atomizer wet. The result is the dreaded burnt taste that is very difficult to get rid of. The solution that many have found is "[dripping](#)," where a few drops of liquid are dripped directly on the atomizer bridge or coil. This provides enough liquid for several good inhales, then the process is repeated. A [drip tip](#) makes dripping a lot easier, as the cartridge does not have to be removed each time more liquid is added.

The Cartomizer

A **cartomizer** can be thought of as an atomizer and cartridge combined into one unit. An electronic cigarette that utilizes a cartomizer is referred to as a **two-piece** model. In an electronic cigarette cartomizer, airflow typically runs through a center tube where the heating element is located. This tube is surrounded either by filler material or a reservoir with a wick that transfers

liquid to the coil.

The first cartomizers were somewhat proprietary, came prefilled with e-liquid and were meant to be disposable. The design is now available for almost every style of electronic cigarette, including numerous styles for the ubiquitous 510 and [eGo](#) models. Cartomizers now come in a wide variety of prefilled flavors as well as empty versions ready to be filled with any e-liquid.

Cartomizers hold quite a bit more liquid than the typical cartridge and provide consistent flavor until empty. A cartomizer can be refilled using a variety of methods including dripping directly onto the filler and using the cap-fill method, both of which are covered in [Cartomizer Filling](#). Some cartomizer designs do not use filler and will require a syringe to fill.

Because they hold a lot of e-liquid in the filler, cartomizers are a very convenient way to use an electronic cigarette while on the go. Changing flavors, however, can lead to less than satisfactory results and it is typically best to use a cartomizer for a single flavor, similar or complementary flavors. Cartomizers do not normally last as long as atomizers and must be replaced sooner, however their lower cost makes this an acceptable trade-off. It is possible to [clean cartomizers](#) to get a little more life out of them or remove unwanted flavors.

Cartomizers, like atomizers, come in low, regular and high resistance. There are even more variations on the design of cartomizers however. The original electronic cigarette cartomizers were designed with filler material surrounding a center mesh tube. Later designs incorporated a plastic tube surrounded by an open reservoir. Recent models include dual coils to provide an even better electronic cigarette experience.

The Decision

Choosing whether to use atomizers or cartomizers is a lot like choosing which flavor of e-liquid to use in your electronic cigarette. A lot comes down to personal choice. The good news is that most examples of either option on the market today perform very well. And there is no reason that both options cannot be put to good use each day. Use a cartomizer on the drive to work and drip on an atomizer during the rest of the day. In any case, there are a lot of good solutions for making your electronic cigarette satisfying and convenient.