

Why You Should Buy A Gas Mask And How To Pick One

- Bandanas, disposable masks, respirators and gas mask all have their place so learn when each is appropriate.
- Test your mask using banana oil or camphor. If you can smell it, your mask is leaking.
- If you wear corrective lenses, want people to be able to hear you speak with your mask on, want to drink with your mask on, have a beard, have kids or babies, all these things factor into your choice of masks.

When to wear a gas mask vs other protection is serious business. Wear a gas mask when not needed and you will attract a lot of attention and frighten folks, potentially putting them and yourself in danger. Neglect to wear it when needed and you and everyone depending on you could run the risk of suffering terribly and possibly dying.

[How To Build a Small Bunker in Your Backyard with \\$400](#)

Why Do Survivalists Own Gas Masks?

Short answer:

Despite what anyone tells you, mankind sucks at predicting the future. If you live in a country with thousands of nuclear weapons pointed at it, owning a gas mask makes sense, but only after you have taken care of more basic needs.

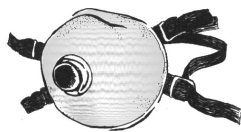
Why survivalists own gas masks:

- We Americans are cohabitating with a couple hundred nuclear power plants. If an EMP knocked out power to

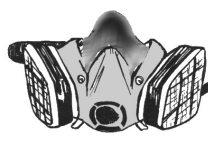
them and fried the electric starters on their generators, how many would be able to cool themselves and shut down and how many would end up like Fukushima?

- If it wasn't enough to have thousands of nuclear warheads pointed at us on existing delivery vehicles, Putin says he feels that the US interceptor program threatens the balance of Mutually Assured Destruction and forced him to develop new delivery vehicles that the interceptors cannot stop. What is troubling is that the interceptors can only handle a few missiles at a time and would be totally overwhelmed by a large strike. What they could stop is a single nuclear weapon used as an HEMP first strike to blind our radar and command and control, so it appears that Putin is bent on maintaining first strike capability.
- We have all kinds of dangerous chemicals traveling our freeways and railways and sitting in giant tanks at everything from meat packing plants to heavy industry.
- The nation is more polarized than it has been in recent memory and regardless of the lines upon which society fractures, we can expect plenty of riot agents like pepper spray and tear gas.
- Wildfires and structure fires produce a lot of smoke. A little over a year ago, there were not any fires within a hundred miles or more and my valley was still filled with smoke. Folks who wanted respirators were out of luck because the stores sold out them in a hurry.
- Air pollution represents a threat that is not going away any time soon. If a severe disaster took down the electrical grid over a large area, forcing survivors to burn wood for fuel, some US cities would soon see worse air pollution than you have probably heard about in China and India.
- Most of my readers are probably too young to remember Mount St. Helens, but the good ol' US of A is home to 169 potentially active volcanoes, any one of which, could send folks reaching for masks.

- We can't predict the future. Catastrophes are typically non-linear problems, so we have a tough time anticipating them. Do you know what chemical tanks and nuclear plants are nearby or where and when the next wildfire or nuclear strike will be? Of course not. Chemical tanks can be anywhere a truck or train passes. Add in a little volatility, like an earthquake, tsunami or hurricane and it becomes to predict what could happen. Emergency preparations, like gas masks, are responsible hedges against an uncertain future.



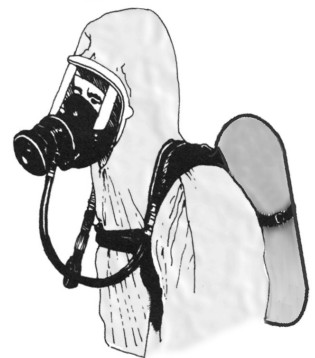
Half Mask,
Particulate



Half Mask,
Dual Cartridge
Disposable



Half Mask,
Dual Cartridge
Reusable



Self Contained Breathing Apparatus (SCBA)



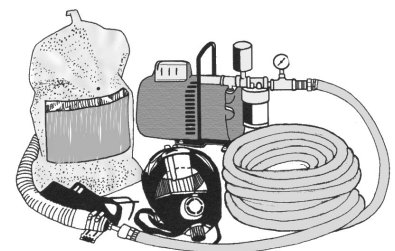
Full-Face
Dual Cartridge
Reusable



Canister Type
Gas Mask



Powered air Purifying
Respirator (PAPR)



Continuous Flow Supplied Air Respirator

When Do I Need A Gas Mask Compared To Respirator, Disposable Mask, Surgical Mask Or A Bandana?

Each of these items fills an important niche in the survival kit and it is important to understand under what circumstance they are appropriate.

Bandana

“Bandanas, dust masks, and surgical masks are not respirators and are not helpful in emergencies!” – *Survival* writer who spent 43 hours researching the topic (and still got it wrong.)

You certainly won't catch me without a bandana or similar tool and there are few survival tools you can carry that are more multi-use than a swatch of cotton. The average American has a 50% chance of being at home, a 25% chance of being at work and a 25% chance of being somewhere else in an emergency. While I do own gas masks and respirators, I don't tote a respirator or a gas mask around town as part of my EDC and don't know anybody who does it without a pressing reason to.

The article mentioned above alleged that some government study determined that a bandana, wet or dry, blocks as little as 3% of particulates. But hold on, don't pull your bandanas from your EDC just yet. If they got out from behind a monitor and into the dirt, they would understand that the efficiency of any filter is dependent on particle size. Anyone who has hopped a train or been through a dust storm can tell you that a properly folded and fitted bandana is better than nothing with large particles.

Particulates lofted by disasters can vary greatly in size. Take nuclear fallout for example. Particle size can vary from 10nm to several millimeters in diameter. The larger and heavier a fallout particle is, the more dangerous it is, so the larger a fallout particle is, the more important it is to keep it out of your body. A particle inside the body is vastly more dangerous than the same particle would be outside the body. Once a particle becomes lodged in tissue, it can deliver a concentrated dose of radiation to a tiny area and is then called a “hot particle.”

This is an example of how just enough information to be dangerous can be worse than no information at all. Our writer

who invested 43 hours in learning about gas masks is about 9,957 hours shy of being qualified as a world class gas mask expert using the outlier model. He looked at how quantitatively inefficient a bandana is for filtering tiny particles out the air and decided that if a bandana is all he's got, it's not worth using, and that is what separates survivors from statistics and why you breathe through several layers of bandana or t-shirt if that's all you've got.

Surgical Masks

Surgical masks (or procedure masks) are typically designed to protect the patient as opposed to the healthcare professional, but masks can protect the wearer from being splashed in the mouth with body fluids and some surgical masks have clear facial shields for this purpose. People constantly shed respiratory droplets and vapor containing microbes out our mouths and noses. If they fall into an open wound, it increases the chance of infection, so healthcare professionals wear masks during procedures to catch the droplets and vapor.

Are surgical masks useful to survivalists? I have some in case I need to perform a procedure or in case I find a healthcare professional who is willing to help but low on supplies, as is often the case in disasters of large scope and long duration. If a family member gets sick, having family members wear them while they are contagious helps limit the spread of disease. Surgical masks also help remind the wearer not to touch their mouth and nose. Surgical masks are an important measure to limit the spread of disease and conserve antibiotics and other medicines that could be irreplaceable and very valuable in this type of emergency. If surgical masks did not have a niche in preventing the spread of disease, doctors would not bother using them.

Disposable Masks

The primary niche for masks is when low bulk and low cost are needed. These masks are cheap enough that you can help a lot of people with limited resources. This is important because emergency management is all about doing the greatest good with the resources on hand.

The numbers on masks can be a little confusing. N95, N99, P100. The letter has to do with oil resistance. Oil resistance is important because oil aerosols remove electrostatic charge and electrostatic charge is important because it helps trap particles between the layers of the filter.

- **N = Not Resistant to Oil**
- **R = Resistant to Oil**
- **P = Oil Proof**

- **95 = Filters 95% of Airborne Particles**
- **99 = Filters 99% of Airborne Particles**
- **100 = Filters 100% of Airborne Particles**

So, a survivalist should choose a P100 mask, because that's the best, right?

Not necessarily. To filter that high a percentage of particulates and be that oil-resistant, the filter must be very dense, which leads to buildup of moisture, heat and sweat. As the filter material get saturated with moisture, the moisture removes electrostatic charge, degrades the efficiency of the filter and makes it harder to breathe, causing even more heat and moisture.

If you anticipate being active and are mainly concerned with dust in the air and reducing communicable disease the N95 mask is actually a pretty good trade off between filter efficiency ventilation.

Disposable masks are great for handing out to others and the models that fold flat are compact enough to stick a few in your Get Home Bag and Bugout Bag. Make sure to choose a model with quality elastic bands and exhalation valves.

Reusable Respirators with Replaceable Filters

Reusable respirators offer advantages over disposable models. One of the most obvious is the quality of the seal against your face. You don't want air sneaking past the mask.

Another advantage offered by some of the better models is downward facing exhalation valves. This channels warm, moist air away from your eye protection. If a situation warrants a mask, it will also warrant eye protection and you cannot have your eye protection fogging up all the time.

Reusable respirators are useful around the workbench and home where space is not such an issue. Sports masks fall in between disposables and reusable respirators and are nearly as compact as disposables making them good candidates for Bugout Bags and Get Home Bags.

Gas Masks

The term 'gas mask' is used to describe a wide range of protective masks. Protective masks vary in material and features according to the threats they are designed to protect against and you can spend a whole lot of money if you want the best protection available against all conceivable threats. I don't feel that my level of risk and exposure warrants investing a lot of money in top of the line gas masks.

The more exotic materials are mainly to increase protection time against an array of chemical weapons. Protecting against chemical weapons is a very involved process involving much more than mask and filter. The entire body must be protected,

which requires specialized clothing and materials right down to the hydration bladder that you drink out of, detection equipment and syringes of specific antidotes. Personally, I don't feel that the level of risk warrants such an investment to protect against each of a dozen chemical agents, most of which would kill you before you don the equipment necessary to protect against it.

I am concerned about nuclear and radiological threats. We come within a whisper of nuclear war far too many times to ignore the threat, and while nuclear energy has a stellar safety record compared to other forms of energy and future reactors could be far, far safer, still, I cannot ignore the potential for great destruction and inherent fragility of complicated man-made systems and the potential for cascading failure.

Your First Gas Mask

So, you have decided to buy a gas mask. There are quite a few things you need to know, so take notes.

When to Buy a Gas Mask

A gas mask is not the very first thing a new survivalist should run out and buy.

Make sure you have the basics like security, signaling, medical, shelter, water, food, navigation, transport and communications covered first. Once you have the basics covered for you and your immediate family, then it's time to start looking at specific threats like natural disasters, pandemic, EMP, and yes, CBRNE, which stands for Chemical, Biological, Radiological, Nuclear, and Explosives. That is where gas masks come into play.

Do not go into debt for emergency preparedness either. Save up and pay for emergency preparations with cash, gas masks included.

Inexpensive, Easy to Build Cellar Will Protect Your Life and Supplies in the Next Crisis

Buy a New Mask

If you are going to spend the money to buy lifesaving equipment like gas masks, buy new masks, not masks that were imported decades ago. Gas masks can lose elasticity and the ability to form a tight seal as they age.

Features

If you want to be able to communicate with a gas mask on, you will need a gas mask with a voice box. If you want to be able to drink with it on, you will need a model with a drink tube and a canteen cap or hydration tube adapter that fits it. If you wear corrective lenses, you will need a model compatible with corrective lens inserts. Forget any one of these and you might waste a lot of money.

Another feature to consider is whether you can change the filter without removing the mask and what kind of filters it takes. NATO 40mm filters are one of the more common types. If you buy a mask that takes another type of filter, you may be able to find an adapter so it can also use 40mm filters.

You Need More Than Just a Mask

For protection against nuclear and radiological threats, more than just a gas mask and filters is needed. What chemicals a mask protects your respiratory tract against is more a function of the type of filter than the mask. What chemicals the mask protects your face against is more the materials the mask is made of.

Protective Ensemble for Nuclear and Radiological Threats

- Gas Mask
- Spare Filters
- CBRNE Protective Overgarment
- CBRNE Protective Gloves
- CBRNE Protective Over Boots
- Tape to seal cuffs
- Radiation Dosimeter & Dosimeter Charger
- Radiation Meter
- Radiation Meter with Remote Sensor
- Potassium Iodate Pills
- Decontamination Kit
- NBC Ensemble Carrier

This is pretty much the bare bones. You will also need batteries, reference material, a shelter and supplies, but this gives you an idea. A gas mask by itself is kind of like a rifle all by itself. Without a cleaning kit, ammunition, magazine and load bearing equipment a rifle is not much use and when you add them all up over the life of the rifle, they typically cost more than the rifle did.

Children and Babies

The seal of the gas mask is extremely important. An adult-sized gas mask will not seal on a child-sized face. You need a child-size gas mask. Small children need a positive air pressure respirator with a hood for small children that seals to their body. In the case of babies, they need the same thing, except for an infant and the entire baby gets sealed inside their own little bubble. Because they are not strong enough to push air through the filter on a gas mask they need a battery powered positive air pressure system. Similar systems can be fitted to adult mask and make breathing a lot easier. If you have anyone in your family that has difficulty

breathing, they will definite want a positive air pressure system.

Facial Hair

If you are caught up in the beard fad, you had better pack a razor, water, mirror and a packet of shave soap in your NBC ensemble. A beard will compromise the seal with your mask, so it needs to come off before you don your mask.

Test Your Mask

Whatever masks you buy, it's important that you test them. If you buy enough of them, you will eventually find a leak somewhere on one or more of them.

The two most common test agents are banana oil (amyl acetate) ampules and camphor. Testing is straight forward. Don the mask, make sure you have a seal, crush and ampule or pour some camphor on a swap and waft it around the edges of the mask voice box and any other potential point of failure and see if you can smell the substance. Be sure to move your head around and vary positions to strain on the mask from every angle. If you don't smell the substance, block off the air intake with the palm of your hand and inhale. No air should pass the seal. Be sure to test the drink tube too if your mask has one. This kind of testing clearly would not work with disposable masks and that is part of the real-world value of an actual gas mask.

If you discover a leak, unless you can get parts for your mask, you will need a new mask. Parts are available for some of the US-issue Masks.

Train with Your Mask

Each model of gas mask has features to get to know and filters have plugs that must be removed before they are installed on

the mask. You do not want to be learning to use your mask for the first time under stress. Many masks come with a filter simulator that restricts the air flow about the same amount as an actual filter. This is a good thing because it enables you to train less-expensively.



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