

# **GAS MASK**

If terrorists really want to inflict the most harm, they would release bio-chem agents when people are at work or school. Most people will instinctively want to get home and they may expose themselves to more nasties in order to get there, dragging contaminants with them.

It's logical if you live in a high profile metropolitan city, there is higher risk, not just from the actual terrorist attack but from ensuing panic. If you're thinking to make "the great escape" after a biological attack, it's probable roads will be blocked by a massive exodus, and more likely, due to official road closures. Hard as it is to swallow, residents of any targeted town may not be allowed to travel lest contaminants go with them. A viable option is to batten down your home and rely on stored goods to see you through.

If you have the good fortune of notification prior to an attack - frankly this scenario is doubtful - go inside immediately. Seal windows, doors and vents with duct tape. Tape between the door and the frame and between the frame and the wall. The space between the door and the floor should be covered with a wet towel. Turn off air conditioning units, swamp coolers and forced air furnaces - anything that brings in outside air. Run them only if they are equipped with a HEPA (High Efficiency Particulate Air) filter.

Don't forget your pets. They will need the same inside protection you do. Even with these measures, it will not guarantee 100% safety if the "bug" is extremely small like an anthrax spore.

Conscientious folks living in metroplexes are taking extra precautions. They may choose to keep a gas mask at home in their night stand as well as in the desk drawer at work and in the trunk of their car. For those on a budget, one mask would suffice providing you are willing to take it with you - home-car-office and back again.

If you live in a rural community, odds are you won't be exposed to a bio-chem agents. Osama bin Laden and other terrorists want to steal the biggest number of lives for their effort and that won't be achieved targeting small towns.

## **WHAT MIGHT WE EXPECT?**

The most likely scenario is the biological weapon though chemical and toxic agents can't be discounted. Chemical warfare is generally delivered by warheads unless their aim is for a much smaller group; e.g. the Aum Shinrikyo released sarin gas in a Japan subway March 20, 1995. They killed 12 and injured over 5,000 people.

Even though chemical products can be mass produced, they are normally delivered by artillery shells. When delivered by plane, much more of the agent is needed. Since it becomes diluted during dispersal, it loses some the toxicity. Chemicals can be blown away by the wind and they are highly susceptible to air temperature. Colder temps allow chemicals to linger three to four times longer than during Summer. For a variety of reasons, it makes less sense for a terrorist to use this weapon. Conversely, most biological agents can be distributed more easily. Many are contagious spreading

illness further and anthrax, for example, remains toxic for months or years and is resistant to destruction.

If you need to go outside for any reason and haven't had the luxury of a vaccine, other precautions should be taken. One of these measures should include a gas mask, but most of us haven't a clue what to look for or what to purchase.

## SO WHAT DO I BUY?

Right now gas masks are very hard to come by. Once the initial panic buying subsides, not only should you be able to purchase gear at reasonable prices, chances are these products will have optimum shelf life. There are some things to consider so you don't get ripped off.

You should be able to purchase a top-of-the-line US mask for no more than \$150 - \$200. Very acceptable gas masks sell for \$50 - \$75.

The gas mask of choice at surplus stores has been the Israeli product. While this is a decent mask, nearly all of the filters are out-of-date. Price-wise one of the best purchases you can make is the Israeli civilian gas mask and upgrade the filter to the one that fits a US made M-95 mask. This top-of-the-line filter costs around \$25 - \$30 and is the standard NATO screw-on type which fits the Israeli mask as well as many others.



Prior to 9-11, the Israeli mask could be had for about \$20 and the filter (though old) for \$7. Now you should be able to purchase this mask for \$20 - \$40. which is still a substantial savings over other makers. In addition to this Israeli civilian mask mentioned above is a newer version, the M-15, which usually runs around \$100.

Pictured is a civilian Israeli gas mask. The youth model looks very similar except smaller.

The M-40 is the top-of-the-line American mask. You should be able to purchase these for around \$200. or just a little higher.

A very good alternative is the M-95 US mask which is normally available for less than \$150.



Due to extremely low breathing resistance, the M95 mask and filter are comfortable to wear even for long periods, without effecting user performance. Light in weight, the mask weighs around a pound.

The British S-10 mask is also a very good choice. It has a special adapter cap which allows for drinking from a bottle without removing the mask.



Canada makes a terrific mask, the C-4. They are reasonably priced and reputed to be very comfortable but are more difficult to locate. You may need to contact a Canadian supplier to find this item.

Another choice is a Euro mask, the BSK. These masks should cost about \$130 plus another \$25 for the NATO screw-on filter.

Youth masks are even more scarce than adult sizes and not all companies manufacturer children's sizes. Israeli and American masks do come in youth sizes.

Babies can't use gas masks since it requires too much inhalation pressure. For them there is a special type hood that goes over the infant and snugs to their waist. It keep their head and chest cover while still allowing diapers to be changed. Generally these hoods are battery powered and have a pouch, tube and nipple inside for feeding.



One thing to consider is that some retailers will try to sell you only their top-of-the-line product - ones suitable for military use. Keep in mind that troops would be exposed to much higher concentrations of chemical or biological agents and need only the strongest line of defense. This would be highly unlikely for the population at large.

AVOID inferior products like the Russian M-10, M-41, SMS and GP-5 masks and the East German masks. Other products to steer clear of are the French/Belgian ANP M51 and Hungarian civilian respirator.

Masks that were being sold literally 20 - 30 years ago and recycled products should be avoided.

## FILTERS

Filters remove contaminants by absorbing them into pellets within the canister. Even unused, filters have a shelf life. Some expire in as little as three years, others five to seven, but be sure to check the expiration date before purchasing.

An expired filter doesn't render them immediately ineffective, but over time they will absorb fewer contaminants. Besides soaking up smaller amounts of the bad stuff, they can attract moisture making them less able to remove chemical and biological nasties. A severely degraded filter might only last 15 minutes in heavy concentration of contaminants instead of three weeks.

When filters reach their expiration date, you don't need to worry about changing the pellets. Each filter is permanently sealed. Simply replace the entire filter; however you may want to keep the old one if you want to practice breathing with it.



Even more important that an expensive mask is a high quality filter. It would be better to buy a less expensive mask - not a crummy one - and purchase high end American M-95 filters for about \$20 each. You should only need to purchase two filters per person. Generally speaking, a M-95 should last three weeks under threat conditions.

**Make sure your filter is for NBC protection!** They are made to protect you from all known biological agents in addition to chemicals like sarin and other nerve gases, mustard gas, cyanogen, arsine, phosgene plus many organic and inorganic gases/vapors and inorganic acids.

Purchase new filters still sealed in the package. Once the seal is broken, filter degradation begins. You may want to keep an old one to practice breathing.

Before purchasing any filter, make sure it is for NBC protection. Painters respirators and ones used to prevent smoke inhalation will not work against bio-chem agents. We've also noticed some web sites selling dust masks as a line of defense against bio-chemicals. These simply won't do as they offer minimal protection. End of story.

Pass over M9 filters which have a different diameter thread. Stick with the NATO screw-on filters like the one pictured above since they are interchangeable with a number of filters on the market. If you need to economize, it is better to get a cheaper mask and the best filter.

Filters come with seals that need to be removed before use. They may also have plugs or screw-on caps at both ends of the filter which must be removed before using.

## **FIT**

Proper fitting masks are vital. For example, you can't successfully put an adult mask on a youth and expect it to do the job. Generally youth masks are for children ages 2-12, but correct fit depends on the size of the child.

It's best to try on a mask to see if it's comfortable. You may be wearing it for a while and you want to make sure the edges seal well and that it doesn't pinch your face or pull hair. Your eyes should be centered in the goggles and give you a wide field of vision. Make sure it shouldn't fog up when you have it on. To give it a test drive, put your chin in the chin piece first, then pull the mask up and over the face. Use the straps to tighten the mask around the back of the head.

Check for leaks by placing one hand over the air hole on the filter. Breathe in and out. If the mask partially collapses and stays collapsed until you remove your hand, the seal is good.

Men with beards have an added challenge to get a good seal. Stubble can cause small leaks. In a pinch, if you have to don a mask quickly, apply Vaseline around the edge of the mask. This will help but a cleanly shaved face is best.

Some manufacturers of adult masks size their products Small, Medium or Large. Other makers use the one-size-fits-all approach, but this is harder to achieve.

How do you know which is right for you? Most retailers do not allow gas masks, filters, etc. to be

returned. For this reason, and seeing firsthand it isn't damaged, purchasing these items over the Internet might not be smart.

## TIPS

Make sure the mask and filter are not damaged in any way. If they are, don't buy them.

Nice features to consider: anti-fogging nose cup and drinking capabilities.

Some units with positive airflow require a Lithium battery to operate. Spare batteries would be clever.

Many face masks aren't made to accommodate eyeglasses. Some manufacturers offer a prescription spectacle kit for glasses that won't fit between the face and the face shield.

Don't loan out your respirator. Doing so spreads germs. Speaking of those pesky things, be sure to disinfect your the mask's interior surface.

Last, keep your mask handy but away from moisture.

## GAS MASK GREED



Right now, because demand and fear are high, some retailers are charging exorbitant prices for gas masks and related items. Stan and I consider these price gougers no less evil than aiding and abetting a terrorist. Jacking up prices now, especially during economic hard times, is simply unconscionable, heartless behavior. One retailer in California is asking nearly \$800 for a single gas mask excusing their greed by implying other companies are selling inferior product. Granted, a few manufacturers have produced crummy gear. However, this DOES NOT EXCUSE the selfish actions of some companies. Hopefully, with a little diligence and perseverance, you will find honest retailers with heart and not patronize the thieves with horribly inflated prices.

## IN CASE OF ATTACK

1. Put on your mask. Since most biologicals' greatest harm comes from inhaling them, you want to protect your face and lungs.
2. If possible, leave the area immediately and with as much calm as you can muster. Head for a rural area where that has no contamination.

## BEEF UP YOUR IMMUNE SYSTEM

- As soon as you learn of a bio-chem attack (if you are not already doing so), limit your intake of food so your body can devote more of its energies to the immune system rather than digesting dinner. Eat more raw foods, vegetables and juices.
- One of the best things you can do is load up on antioxidants. "C" is one of the best vitamins to take. Store plenty of the natural variety with rosehips and bioflavonoids. Some recommendations suggest as much as 1000 mg. of C every two hours which requires fruit or juice intake so it doesn't make you sick.
- Antioxidants Vitamin E and B6 have reputations for boosting the immune system as does Vitamin A which helps ward off infections to the eyes, respiratory system and gastrointestinal tract.
- Eat organic foods as much as possible. No one needs pesticides in his system.
- Remove the "white" foods from the diet: white rice, white flour product and white (refined) sugar. Two cans of soft drink can approximately 24 tsps of sugar - enough to suppress the immune system for five hours. If you're grazing all day on pop and sweets, what ammo does your body have to fight disease?
- It should be noted that people who are in tiptop shape - those who are physically active and have not subsisted on junk food will have the best chance of fighting these poisons naturally. It's never too late to exercise! Not only does exercise rev up the immune system, it relieves stress - something that makes us more susceptible to disease.
- Give your body plenty of rest and water. Burning the candle at both ends depletes the body of disease-fighting capabilities.
- Grapeseed extract is a good idea as well as raw garlic. Raw garlic exists through the lungs which is what the biological agents are most likely to attack. Raw garlic has both antibacterial and anti-viral aspects. Place raw garlic into a glass of tomato juice and add one small clove. Drink every six hours.
- Tea tree oil is reputed to be very good for treating bacterial infections of the skin. Apply to cuts, wounds and sores.
- Colloidal silver is also purported to have antibacterial, anti-viral effects as well. Again, check with your naturopath for the correct dosage as too much colloidal silver, over time, may cause a permanent graying of the skin - a condition known as argyria. For shorter periods of time, use one dropper full of every six hours.
- Powerful blood cleansers include these three natural herbs: Echinacea, Goldenseal and olive leaf extract - all available in health food stores. Take at the first sign of illness.

**NOTE:** Please understand I am not offering this as medical advice, purely as food for thought.

## **FINAL THOUGHTS**

Take charge of your own preparedness - as much as you are able. Such efforts give a degree of comfort and feeling of control over your future. These times are frankly a little scary, but taking positive action helps the stress levels.

Medical experts raise a valid point. It is entirely probable the American public will not even know a bioterrorist attack has taken place until people begin to fall sick. By then a mask doesn't do much good unless there is another strike in the same area.

Weigh your options. Consider your location, your exposure and time spent in high profile cities. If you feel you need protective gear, it's cheap insurance and may just save your life.

Lastly, store water, food and household items as you would for any emergency. If you need help with water storage and purification methods, planning your food storage and quantities needed along with first aid and general household and repair items.