



A Head's Up On Our Region's Risks

From SSVMS Public and Environmental Health Committee

"Rare Diseases Are Rare, Except... Among Those Who Have Them."

This quote is an old saw from our medical school training. The trick is to be aware of the peculiar risks your patients face which may make them more likely to have a "rare disease."

We think most often of occupational risks in this category. However, the simple act of living in the Sacramento region places us all in a peculiar risk category for some unusual diseases and conditions.

This list is a "heads up" of what those risks are, what we can do about them individually and collectively (public policy) and what diseases they may bring into our offices.

Unwelcome risks exist no matter where you live. This region is no exception. We do have wonderful reasons to live here, without the risks some suffer in other places. We do not have hurricanes, hot and humid summers, exploding volcanoes, malaria epidemics and so on. But we do have earthquakes, mud slides, avalanches...

The following risk categories are all of a similar magnitude. That is, they all have a relatively low incidence (frequency of new cases) or prevalence (number of cases present in a community). Importantly, we are able to do something about each of them to reduce our individual and collective risks.

Asbestos

Asbestos is a rock-fiber once used commercially for insulation and other purposes. Workers who inhale high volumes of highly concentrated asbestos fibers suffer various lung diseases, including a rare form of cancer (mesothelioma). Naturally occurring asbestos (NOA) occurs in some rock formations in our region. We are at risk from inhaling dust that contains asbestos fibers. The highest risk is in dusty, dry times of the year.

Individual: Avoid producing dust and avoid entering dusty situations.

Community: Identify NOA areas and places where moved dirt may contain asbestos fibers (roads, playing fields, parks, construction areas); enforce dust mitigation controls; reduce dust risks on frequently used NOA containing dirt surfaces.

References:

www.atsdr.cdc.gov/toxprofiles/tp61.html

www.atsdr.cdc.gov/asbestos/index.html

Asthma

Asthma is a spasm of the air tubes in your lungs. We currently suffer a nationwide epidemic of asthma for unknown reasons. Our region has the peculiar problem of high air pollution (including ozone and wood smoke) which regularly occurs in the summer months. Ozone can precipitate asthma attacks.

Individual: Watch weather reports for "Spare the Air" days and stay indoors during period of peak ozone levels.

Community: Our ozone drifts in from the populated areas to the east. Less air pollution is the solution to this problem.

Cancer

Cancer is the second leading cause of death. This region has two peculiar risks for cancer - radon gas and naturally occurring asbestos. See each individual entry.

Individual: Tobacco causes one third and bad nutrition causes another third of cancer cases. You can reduce two-thirds of your cancer risk by avoiding tobacco and eating a low-fat, high-fiber diet.

Community: "Secondhand smoke" from smokers also causes cancer. All California public places are now smoke free by law (work sites, restaurants, etc.) and your home should have rules for smokers as well. Foods are labeled for nutritional value; you can protect yourself and your family with a high-fiber, low-fat diet.

Hantavirus

Hantavirus is a severe respiratory disease spread by breathing in small particles of mouse excrement that are stirred into the air. It occurs most frequently among persons who live or work in rural areas.

Individual: Avoid disturbing areas of mouse contamination in enclosed, poorly ventilated structures. Remove incentives for rodents such as uncovered garbage and food.

Community: Protect family from exposure by trapping rodents in buildings and blocking all areas of ingress for rodents from the outside.

References:

<http://www.cdc.gov/ncidod/diseases/hanta/hps/index.htm>

<http://www.cdc.gov> (search for the word "Hanta")

Lyme Disease

Lyme disease is an infection acquired from the bite of a western black-legged tick. The ticks may crawl onto you when you are outdoors and in contact with brush or logs. Lyme disease is a problem when the western black-legged tick is most abundant, in the fall (October-December) and spring (March-June).

Individual: Stay on trails and avoid contact with brush and logs; wear long sleeved shirts and long pants. Apply a pesticide to clothing (e.g., DEET). After outdoor activities in tick habitat, examine your entire body for tiny ticks and remove them using tweezers and pulling the tick straight out.

Community: Keep trails free of overhanging brush; warn hunters and other outdoor people of the risk.

References:

<http://www.dhs.ca.gov/ps/dcdc/disb/pdf/Lyme%20Disease%20Brochure%20June%202005.pdf>

<http://www.dhs.ca.gov> (search for the word "Lyme")

Ozone

Ozone is a peculiar form of oxygen produced as an air pollutant from sunlight's interaction with chemicals. In high concentrations it can react with lungs to precipitate asthma attacks and worsen other lung diseases. This is a seasonal problem highest in the late summer and early fall.

Individual: Watch weather reports specific to air pollution. Stay indoors as much as possible during "Spare The Air" days.

Community: Less air pollution is the solution to this problem.

References:

www.lunguse.org (search for "Ozone")

www.arb.ca.gov/aqmis2/ytd_ozone.php

www.arb.ca.gov/airways/caaq.htm

Plague

Plague is an infection acquired from the bite of an infected flea from a wild rodent. Fleas can jump a long distance - sometimes up to 3 feet. Some areas sustain a constant low-level of plague where transmission risk may increase when large numbers of rodents die.

Individual: Do not feed rodents (including chipmunks) or handle rodent carcasses. Stay away from rodent burrow holes. A fever with a painful swelling under your arm or in your groin is a possible sign of plague. Wear long sleeve shirts and long pants and use topical

pesticides on hikes and outdoor work. Keep cats indoors and away from wild rodents, as they can not only get plague themselves but transmit the disease to humans.

Community: Post areas where the problem is active. Close parks and other public areas with rodent and small mammal die offs. This tends to be a problem in late summer and early fall.

References:

www.cdc.gov/ncidod/dvbid/plague/index.htm

Radon

Radon is a naturally occurring colorless, tasteless, and odorless gas that comes from the decay of uranium found in nearly all soils. It is especially a problem from granite rock. Long-term exposure to elevated levels of radon increases the risk of lung cancer.

Individual: Testing is the only way to know if you and your family are at risk from radon. There are simple ways to fix a problem if needed. Free test kits are available from the California Department of Health Services, see the website below for details.

Community: Identify geographic areas of risk and publish methods and vendors who can responsibly test and mitigate the facilities, if necessary.

References:

<http://www.dhs.ca.gov/radon/default.htm>

Vehicle Accidents

Both road travel and off-road recreation can be risky in mountainous areas. We have many injuries each year involving motorists, bicyclists, motorcyclists, and off-roaders. This is a year-round situation.

Individual: Be cautious in severe weather, obey driving laws, avoid alcohol use, drive defensively. Consistent use of bike and motorcycle helmets - off road or on - helps prevent serious head injuries.

Community: Enforce highway and liquor laws; inform citizens of risks, responsibilities, and need for us all to engage a community standard of safety.

West Nile Virus (WNV)

WNV is an infection acquired from the bite of an infected mosquito. These mosquitoes preferentially bite at dawn and dusk. This problem is only recently arrived in this area; it is seasonal with highest risk in late summer and early fall.

Individual: When outdoors, particularly at dawn and dusk, wear long sleeves and long pants, and apply mosquito repellent containing DEET. Make sure doors and windows have tight-fitting screens and repair or replace screens with tears or holes. Eliminate standing or stagnant water on your property.

Community: Alert public when infected mosquitoes are present, eliminate standing water breeding sites, control larval mosquitoes where possible, spray for adult mosquitoes only when the threat is large.

References:

<http://westnile.ca.gov>

Wild Fires

"Natural" and man made fires sweep across our area periodically. These occur most frequently in late summer and fall.

Individual: Be careful with all fires (especially cigarettes & matches), flee at the first smell of smoke in a rural area in the fire season.

Community: Support fire safety programs, remove trees and brush from around your home or business, build with fire safety in mind.

Wood Smoke

Controlled home heating with wood produces visible particulate air pollution (smoke) which can precipitate asthma attacks and exacerbate lung diseases.

Individual: Avoid wood smoke in your residence..

Community: Consider limitations on wood stove use during weather conditions which are unfavorable.

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