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NON-CIRCULATING

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Texas Preventable Disease



NEWS

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TEXAS STATE DOCUMENTS
COLLECTION

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FIREWORKS SAFETY*

Every year thousands of Americans are treated in hospital emergency rooms throughout the country for injuries caused by fireworks. In 1985 alone, over 10,300 persons suffered fireworks related injuries. Over half of the injuries were burns and lacerations. Also included are several incidents of both eye and hearing damage. Over 79% of all reported fireworks injuries occurred among individuals less than 25 years of age; 42% were in children under 15 years of age. In addition, 27 persons are known to have died in fireworks related incidents from January 1985 through May 1986; 23 of the 27 deaths were the result of explosions in two fireworks factories.

In 1976, the Consumer Product Safety Commission (CPSC) published regulations banning the use by consumers of the larger, more dangerous Class "B" exploding fireworks and establishing safety performance requirements for the smaller, more common Class "C" fireworks.

Legal Fireworks

Each year the CPSC conducts regulatory investigations to ensure that manufacturers sell to consumers only those fireworks which comply with CPSC regulations. Fireworks devices such as mortar shells, firecrackers containing not more than 50 mg of powder, sparklers, bottle rockets, cone fountains, Roman candles, mines, wheels, helicopters, and multiple tube devices are commonly known as "Class C" or "safe and sane" fireworks. These may be sold to consumers according to federal regulations so long as they comply with the labeling and performance requirements specified in the regulations.

Common firecrackers must contain not more than 50 mg of explosive powder and must have a safety fuse that burns at least three seconds but not more than six seconds. They must also be labeled with an appropriate statement of hazard and instructions for handling, storage, and use. Regulations specify labeling for other types of fireworks. Sparklers must bear the following cautionary information: "WARNING: Flammable. Use only under adult supervision. For outdoor use only. Do not touch glowing wire. Hold in hand with arms extended away from body. Keep burning end of sparks away from wearing apparel or other flammable materials."

Although these Class C fireworks must meet federal regulations, most states have their own laws governing the sale and use of fireworks. Fourteen states have banned the use of all fireworks devices regardless of whether or not they comply with federal regulations and nine states allow sparklers and snakes only. Before buying and using any fireworks, check with local police or fire officials to find out what is legal in your locale.

Illegal Fireworks

In spite of federal laws which have prohibited their sale for nearly 20 years, Class B fireworks are sold and used in virtually every state in the country. These devices, which include cherry bombs, M 80's, silver salutes, M 100's, and other large firecrackers, are among the most common of the banned Class B fireworks and are commonly available to consumers through bootleg sale at roadside stands and other retail establishments.

*Adapted from: CPSC. News from CPSC, June 19, 1985.

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Class B fireworks are dangerous and have been known to produce lethal explosions. Recently, there was an explosion at a fireworks factory in Ohio where it is believed M 100's and other illegal fireworks apparently were being made. Nine factory workers were killed, and the factory was reduced to a huge crater.

In most cases, anyone who is not familiar with the different types of fireworks devices cannot recognize the difference in illegal fireworks and legal Class C fireworks. These tips may be useful in identifying banned fireworks:

1. Do they have the name and address of the manufacturer or importer? Most banned fireworks do not.
2. Do they have appropriate instructions for using the devices? Most banned fireworks do not.
3. Firecrackers larger than 1 1/2" X 1/4" may contain more than 50 mg of powder and, therefore, would be banned.

When in doubt, check with local fire or police officials or, better still, look for other devices which do have proper labeling and instructions for use.

Safety Tips

To make your holiday safer, be careful in using all fireworks devices. Do not allow younger children to ignite or play with fireworks under any circumstances. Remember that fireworks are not toys for children to play with.

To help reduce the risk of injury while using fireworks, the following safety precautions should be observed:

- ☆ If older children are permitted to use fireworks, make sure they do so only under close adult supervision. Do not allow any running or horseplay while fireworks are being used.
- ☆ Before using any fireworks, read and follow all warning instructions printed on the label.
- ☆ Light all fireworks outdoors in a clear area away from houses and flammable materials (gasoline cans, etc.).
- ☆ Keep a bucket of water nearby for emergencies and for dousing fireworks that don't go off.
- ☆ Do not try to relight or handle malfunctioning fireworks. Soak them with water and throw them away.
- ☆ Be sure other people are out of range before lighting fireworks.
- ☆ Never ignite fireworks in a container, especially in a glass or metal container.
- ☆ Store fireworks in a cool dry place. Check instructions for special storage directions.

* * *

DENGUE

By the first week of May 1986, over 100,000 cases of dengue had occurred in Rio de Janeiro, Brazil. Although in Texas indigenous cases of dengue have not been reported since 1980, a few imported cases in travelers returning from dengue-endemic or epidemic areas have been reported. Texas physicians are reminded to consider dengue in patients returning from Brazil with flu-like illnesses.

Dengue, like many viral infections, may be manifest in a wide variety of clinical illness. Between 40% and 70% of infections with dengue virus result in no apparent illness. Viremia still occurs so that asymptomatic individuals can play a significant role in disease transmission. Asymptomatic infections occur more frequently in children than adults. A mild illness, usually consisting of headache, fever of a few days duration, and other mild constitutional symptoms is also common. In this form, dengue is essentially a non-specific febrile illness similar to those produced by a broad spectrum of viral and other microbial agents.

Fewer than 50% of individuals with dengue infections have classical dengue fever, a syndrome characterized by fever (ranging from 100°F to 104°F) lasting from five to seven days; malaise; and a combination of several of the following: retro-orbital pain, headache, macular rash, backache, myalgia, and arthralgia. Some patients report an initial chill while others mention a brief prodrome of general malaise. Respiratory or gastrointestinal prodromes do not suggest a diagnosis of dengue; however, varied respiratory and gastrointestinal complaints such as cough, sore throat, nasal congestion, nausea, vomiting, diarrhea, constipation, and abdominal pain may be made during the course of illness.

A macular or maculopapular rash may appear on the face or trunk on the second to fourth day of illness and later extend to the extremities. The rash may be pruritic. In some instances, petechiae appear, and the tourniquet test is positive. Many persons with dengue fever may develop a rash, and those who do may visit their physician prior to its onset. Thus the absence of rash should not be used to exclude a diagnosis of dengue. The appearance of a rash commonly causes dengue to be mistaken for rubella or measles or a host of enteroviral infections. Again, the absence of a respiratory or gastrointestinal prodrome can help the physician differentiate these illnesses.

Other symptoms and findings observed with dengue include an altered or bitter taste sensation, lymphadenopathy, and leukopenia. In some patients, a one- to two-week period of generalized weakness may follow recovery.

The diagnosis can be confirmed by:

1. Isolation of the virus from acute serum collected and frozen within the first five days after onset of illness, or
2. A four-fold rise in titer between serum samples collected at least two weeks apart.

The following case definition may be used in selected patients to be tested:

Fever (temperature $\geq 101^\circ\text{F}$),
Headache (with or without retro-orbital pain),
Macular rash, and
No prodromal symptoms suggesting a respiratory or gastrointestinal infection.

Paired serum specimens should be sent to the Bureau of Laboratories, Texas Department of Health, 1100 West 49th Street, Austin, Texas 78756 with TDH form G-32 or the patient's name and address, the physician's name and address, identification of specimen type (serum), dates collected and test desired (dengue serology). Submission of samples for virus isolation should be coordinated by calling (512)458-7592 or STS 824-9592.

NOTICE TO READERS

The Editor of Texas Preventable Disease News (PDN) welcomes written accounts of communicable disease and other public health problems encountered and investigated by local health professionals throughout the state. During 1985, numerous articles published in PDN were contributed by individual health care workers in Texas. The Bureau of Epidemiology encourages public health workers to share their experiences and information relating to matters of professional public health interest or concern. Previously published accounts of this nature have been favorably received by the readership. Interested authors are requested to contact the Editor of PDN for additional information pertaining to general guidelines for publication at (512) 458-7207 or STS 824-9207.

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