

all's well that ends well

It takes seconds to turn a fun-filled day to a nightmare. This is all the more true in case of *Diwali*, so make sure you take sufficient precautions while making merry.

by SASWATI SARKAR

WHILE EVERYBODY of his age waits eagerly for *Diwali* every year, 6-year-old Adwai, from Kolkata, dreads this day the most in his life. “*Diwali* 2014 was a nightmare for us—Adwai, got a severe asthma attack that day and we had to rush him to the nursing home, where he had to be kept for three days,” recalls his mom Leena Chatterjee, 32. Being a premature baby, Adwai had weak lungs which made him more susceptible than others to cough, cold and other respiratory issues. The massive air pollution during that time had worsened his condition. From then on, Adwai avoids stepping out of his room on this day.

Adwai is only one among thousands of other kids who have difficulties during *Diwali*. While it is best to celebrate the festival with *rangolis*, *diyas* and crafts, and avoid firecrackers altogether, it’s not always possible to keep kids away from them. This calls for precautionary measures. We give you the top three risks you need to be cautious of, to celebrate safely.

➔ smoke

fear factor

The smoke from the firecrackers leads to air pollution that can trigger skin allergies, and allergic cough and cold. According to experts, children are most vulnerable to the harmful effects of toxins released into the air during *Diwali* as their defence against these pollutants is yet to be fully developed. Moreover, their airway epithelium is more permeable to the pollutants they inhale. Add to this the fact that your kids are way more physically active than you are – they take air into their lungs in larger volumes, which in turn increases their toxin intake as well. It is estimated that every hour,

* Air pollution may cause burning eyes, runny nose and allergic coughs along with sneezes.

fireworks increase the compound ‘strontium’ in the air by 120 times. Though it doesn’t affect adults to a great extent, in kids it is likely to impair bone development by replacing calcium in the bones. There are two more gases that firecrackers release into the air: Sulphur dioxide and nitrogen dioxide. While the former causes respiratory allergies, the latter may trigger skin allergies. “Air pollution created by firecrackers may cause burning eyes, runny nose, allergic coughs and sneezes, and skin irritation. It may also aggravate bronchitis in a child who’s already suffering from the condition,” says *Child Advisor* Dr. Arun Wadhwa.

the right moves

- If you have a baby home, make sure the doors and windows are shut during the peak hours of celebration. “Using indoor air purifiers will also help. You can use humidifiers to keep the air inside sufficiently humid,” says Dr. Wadhwa. High efficiency performing air filters could be a good option. This would ensure 8-10 hours of sleeping time with a clean air for your munchkin.
- Buy a high-quality face mask for your child to filter out dangerous airborne particles. Look for either N95 or N99 rated masks that filter out 95 to 99 per cent particles. Make sure you get one with the perfect fit for your child. A mask that doesn’t fit well defeats the purpose altogether.
- Talk to your child’s school and

ask the authorities to monitor air quality both inside and outside the classroom. Suggest that they adjust outdoor sports and activities to limit exposure during the bad air period—early morning and late afternoon and evenings. If your child is into any after-school outdoor activities, give a break around this time, or talk to the institution to change the timing to late mornings on weekends.

- Download real-time air-quality apps to monitor hourly readings and see forecasts for the next day.

➔ burns and injuries

fear factor

“A majority of *Diwali*-related burns happen due to firecrackers, with burns on hands and face being the most common,” says Dr. Sunil Keswani, Medical Director,



your first aid box

We tell you what should be in your medicine chest should there be an emergency.

- Gauze pieces
- Adhesive bandage like Band-Aid
- Bandage
- Antiseptic lotions such as Savlon
- Antibiotic ointments like T-Bact or Fucidin
- Ice pack
- Domstal syrup (for nausea)
- Probiotics like Econorm sachets
- Crocin syrup
- Anti-histamine syrups



National Burns Centre, Mumbai. According to a 10-year-long study by KEM Hospital, Mumbai, the maximum number of firecracker-driven injuries was seen in the age group 5-14 years, and 92 per cent of these children were unsupervised. The most common cause of injury was firework misuse, followed by device failure, mostly with *anaars* and rockets. Sparklers, however, caused the least injury. While *anaars*, ground spinners and sparklers, caused only soft tissue burns; string bombs (high-intensity fire crackers made by wrapping chemicals with jute strings/coir in layers) and rockets caused blast injuries, leading to soft tissue disruption and bony injuries. Also, *diyās* and other items with an open flame increase the risk of burn injury, especially if you have a crawling baby.

the right moves

- “Make it a point to not leave your children unsupervised when they

✳ It is not advisable to expose kids to more than 120 decibels of peak sound pressure.

are burning crackers,” advises Shalini Ahuja Agarwal, CEO, Safe Baby, Mumbai.

- Make sure that they wear protective eyewear while having fun with fireworks.
- Synthetic or silk apparels increase the risk of a burn as they catch fire easily. So it’s best to ensure that your child is dressed in safe and non-flammable fabrics. Ideally, one should stick to cotton. When going outdoors, avoid frilly and flared dresses. Flying figments from crackers can easily set these on fire.
- Be extremely careful when lighting *anaars* with your little ones. “Don’t let them light the

anaar holding it in their hand. They shouldn’t bend over it while lighting it on the floor. Once lit, make sure that they withdraw quickly. In case it does not work after lighting, don’t allow your child to approach it before five minutes. Even then, it should be approached cautiously,” says Agarwal. It’s best to avoid re-igniting it.

- Pick the location for playing with fireworks carefully. Do not allow any fireworks inside the house. For external venues, make sure there is no traffic. Children may not notice oncoming traffic in their excitement. Make sure there are no inflammable goods or articles close by.
- Keep a bucket of cold water handy, close to the place where the firecrackers are being burnt—in an emergency, you do not want to waste time looking for water. “Cold water is the best home treatment for burns. Hold the burnt area under tap water for

10-15 minutes till the burn cools down. Do not apply butter, oil or any ointment on the burn as that could lead to infection,” says Agarwal.

- Used fireworks should be disposed carefully, especially sparklers. They remain hot after use. Have a designated area for the disposal of fireworks, preferably a sand pit or a bucket of water.

- “Have a list of emergency contact numbers ready. This list should include phone numbers of your paediatrician, closest hospital and ambulance, and fire station. It should be saved on your mobile phones or kept in a place where it can be found easily,” says Agarwal.

➔ noise pollution

fear factor

Some fireworks produce a sound output that is in the 150-175 decibel range. “It may lead to a certain degree of hearing loss, especially in kids depending upon three factors: The intensity of the sound, its duration, and your child’s proximity to the sound source,” says Delhi-based ENT specialist and *Child Advisor* Dr. Atul Ahuja. The World Health Organisation recommends that adults not be exposed to more than 140 decibels of peak sound pressure. For children, the recommendation is 120 decibels.

the right moves

- High intensity crackers like the string bombs explode producing a sound output beyond 120 decibel. You should stand 15 to 20 metres away while children would have to stand 50 to 60 meters away from such fireworks. Infants should not be exposed to fireworks at all, because they are known to experience the greatest amount of sound pressure.

protect your pooch

Dogs have a terrible time during *Diwali*. Help them feel better by guarding them against every possible danger.



Dogs have a higher auditory capacity than humans, which makes them great guards. But this has a flip side too: Being able to perceive the same sounds much louder than you do, your canine companion gets extremely scared and anxious during *Diwali*. As a pet owner, you need to ensure that your pet feels safe with a few adjustments.

SPACE IS IMPORTANT. Take a cage or any enclosure, and add padding with blankets. Keep some space for ventilation, and put in your dog’s favourite toys. Also, it is best to take the dogs out for a walk during the daytime, when there are no crackers being burst. During the evening, you should keep them indoors, lock the doors and have the windows shut. You can also play loud music or keep the TV on throughout the night in order

to drown out the noise of the firecrackers.

SUPPORT IS A MUST. Be there for your furry friend when she is terrified. Apart from providing practical solutions, just the fact that you are around to give them that emotional support, provides dogs comfort. If the dog is very scared, it’s good to use cotton balls to plug his ears.

HYDRATION IS NECESSARY. Shivering and general loss of appetite is normal during this time, as is panting. So, making sure that your pup is taking fluids sufficiently, is very important. Give her extra treats till the stressful period is over.

TRIMMING WILL BE GOOD. There will be several open flames inside the house by way of *diyās* and candles. So a quick trim to shorten your pet’s fur might actually reduce chances of catching fire.

- If possible, keep your baby in the quietest room of the house. You can also protect his ears with ear muffs or cotton balls. If you use cotton balls, make sure that they are tightly rolled so that loose cotton doesn’t get inside your child’s ears. Also, make it a point to avoid pushing the cotton ball deep into your little munchkin’s ear. “For kids around the age of 7-8 years, 3M ear plugs are the best option. Being soft, pliable and conical in shape, they sit well inside the ears taking its shape easily. Make sure you don’t push the ear plug too far.

One cm inside the ear is just fine,” says Dr. Ahuja.

- While buying firecrackers, go for low-sound or soundless crackers. For example, butterfly crackers (these emit sparkles in a circular pattern like butterflies), parachute rockets (goes up in the sky and comes down with a parachute), *miyan-biwi* crackers (a set of two crackers which collide with each other to give the look of a fighting couple) and photo-flash crackers (a soundless cracker that emits lights for three-five minutes) can be good options. ●