

**Nassau County Child Fatality Review Team
Informational Release
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CHOKING ON FOOD: A RISK IN ALL CHILDREN

For Immediate Release:

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The Nassau County Child Fatality Review Team (NCCFRT), in accordance with its Protocols and Procedures Manual, is distributing its second Informational Release with approval from the New York State Office of Children and Family Services. The NCCFRT is a multidisciplinary team that has functioned since December 2008 as a NYS approved child fatality review team as provided in Social Services Law (SSL) §422-b. The team was created to review fatalities of Nassau County residents age 0-17 years whose death is otherwise unexpected or unexplained.

Membership in the CFRT is defined by SSL §422-b. This statute requires the participation of certain local governmental agencies and private individuals. §422-b also allows for the appointment of permissive members from various fields of practice. Mandatory team members include Nassau County Child Protective Services, Office of Children and Family Services (OCFS), Nassau County Department of Health, Nassau County Office of the Medical Examiner, Nassau County District Attorney's Office, Office of the Nassau County Attorney, Nassau County Police Department, Emergency Medical Services, New York State Law Enforcement and a pediatrician, or comparable medical professional, preferably with expertise in child abuse. The team has added additional members with expertise relevant to child fatality prevention and/or review.

The mission of the NCCFRT is to review child deaths to better understand the causes of these deaths and to make recommendations based on the team's findings in order to reduce future child fatalities. The NCCFRT meetings are confidential and closed to the public. A confidentiality statement is signed by each member, at the start of each team meeting. The team follows a protocol and procedure manual which is in accordance with New York State Social Service Law §§ 20(5) and 422-b, along with OCFS guidelines. As of December 2012, the team has reviewed a total of 59 cases due to a variety of causes. This report is *not* intended to function as an annual report, but rather as an Informational Release addressing certain NCCFRT cases. In this issue, the Informational Release will focus on those cases whose death was related to choking.

Choking in Children

Since January 2009, the team reviewed four cases, occurring since 2008, where the cause of death was listed as asphyxia or aspiration related to a food item. There were no non-food choking deaths reviewed. The age range of the deceased children spanned from two to four years. All four children choked on a food item not typically recommended for infants and toddlers. These items included a grape, a piece of meat, a carrot and a piece of exotic/tropical fruit with a large seed. Though three of the cases occurred in children of Hispanic origin, it is recognized that food choking poses a universal risk for children.

Choking, due to the blockage of the airway, deprives a person of oxygen, which can result in death, permanent brain damage or other injury.¹ For children under the age of 5 years, choking is the fourth leading cause of unintentional death.² Food, toys and household items can be choking hazards.² According to the 2012 American Academy of Pediatrics (AAP) policy statement on choking prevention, one child dies every 5 days due to choking on food, with more than 10,000 children presenting to emergency rooms each year due to choking injuries.³ According to the 2010 NYS Department of Health 'Health Advisory', there was an average of 45 deaths annually in New York,

between 2006-2008, due to choking in children 0-19 years.⁴ This may be due, in part, because young children have the tendency to place objects in the mouth. The primary causes of choking-related deaths in children are food, coins and toys.³

The focus of this report is on food related choking. The most common foods associated with choking in children are hot dogs, hard candy, nuts, seeds, whole grapes, raw carrots, apples, popcorn, chunks of peanut butter, marshmallows, chewing gum and sausages.³ Other food items frequently cited as choking risks include: raisins, cheese cubes,⁵ meat chunks, fish with bones, chips, pretzel nuggets, caramels, jelly beans, raw vegetables, fruit, fruit with skin, dried fruits, ice cubes.² In addition to food, household items may also be high risks for choking, including latex balloons, coins, small balls, toys with small parts, pen/marker caps, button batteries, screws, medicine syringes, bean bag stuffing, rings, earrings, crayons, erasers, staples, pins.²

Young children are particularly at risk of choking on food due to the anatomy of the airway and the underdeveloped ability to chew and swallow.³ The airway of a child is smaller in diameter than that of an adult, and a child's ability to dislodge a piece of food by coughing may be less effective than an adult's ability to cough out a similarly sized item of food.

According to the AAP, the issue of choking on food is relatively under-addressed in the United States in respect to children.³ The U.S. Consumer Products Safety Commission (CPSC) has a system in place, which includes surveillance, legislation and regulations that regulate toys and consumer products to protect against choking and injury.³ The CPSC requires labeling of toys that pose a risk to children, but there are no such counterpart regulations for food. While some food manufacturers do place warning labels on high risk products, it is not a requirement. Such warnings are voluntary.

AAP recommendations to prevent choking include³:

- Mandatory system to label food with appropriate warnings according to choking risk by the Food and Drug Administration (FDA) with collaboration with United States Department of Agriculture (USDA). (USDA controls meat, poultry and certain egg products.)
- Surveillance and investigation by the FDA of food-related choking incidents with reporting to the public by FDA in coordination with the CPSC of existing and emerging food hazards.
- Recall of food products with unacceptable choking hazards with collaboration with USDA for meat products.
- A widely publicized food choking campaign with a focus on children by the FDA in cooperation with the USDA, CPSC and AAP.
- Intensified choking prevention counseling by pediatricians, dentists and other infant and child health care providers.
- Design of new foods and redesign of existing foods to avoid the characteristics that increase choking risk (shape, size, texture).
- Cardiopulmonary resuscitation (CPR) and choking first aid training for those who care for children such as parents, teachers and childcare providers.

Public Health Law §2500-I, passed in 2007, addresses childhood choking and gives authority to the New York State Department of Health (NYS DOH) to³:

1. Establish criteria for choking risks based on age for different foods.
2. Conduct public awareness and education programs.
3. Review available choking data

Note, however, that implementation of these programs is contingent upon appropriation from the legislature. To date, no such appropriations have been made. In spite of the lack of funding, the State DOH, using other grant funds, has implemented certain informational programs regarding children and food safety. These additional recommendations from the NYS DOH include²:

- Always supervise a small child when eating.

- Do not rush meals or snacks.
- Shape, size and texture of food matters!
 - Remove seeds and pits
 - Cut food into small pieces
 - Cook vegetables to soften texture
 - Cut hotdogs lengthwise and widthwise.
- Offer liquids between mouthfuls (but not simultaneously).
- Model good eating behaviors.
- Only use small amounts of peanut butter.
- Educate caregivers on choking hazards.
- Be familiar with CPR and the Heimlich maneuver.
- Be very careful with toys and foods that are considered to be high risk.

Additional tips for parents not mentioned above include:^{6,7}

- Keep high risk foods (see above) away from children under the age four years.
- Allow children to eat only while sitting, not while walking, playing or riding in a car.
- Be aware of older children's actions. An older child may give dangerous objects or food items to a younger child.
- Avoid toys with small parts and follow recommendations on toy packages; Consider using a small parts toy tester. A small parts toy tester should NOT be used on food items.
- Check in and under furniture for loose objects.
- Never allow young children (or infants) to play with coins.
- Be aware that balloons are considered to be a choking risk in children up to the age of *eight years*.
- Thoroughly clean floors and remove all food particles after eating.
- Make sure all your child's caregivers, including grandparents and babysitters are aware of all the risks!

It is clear that there needs to be more done to fill in the gaps in food-related choking prevention measures. It is important to remember that choking deaths are preventable.

To help address this issue the team has/will:

- Released this Informational Release initially to OCFS followed by release to the media and to the general public.
- Will work to disseminate and support the recommendations of the AAP.
- Will continue to review individual choking cases as appropriate.
- Develop an outreach and educational effort for community members and health care providers.

¹ Centers for Disease Control and Prevention. Nonfatal Choking-Related Episodes Among Children: United States, 2001. *MMWR Morbidity Mortality Weekly Report* 2002;51(42):945-948.

² Available at: http://www.nyhealth.gov/prevention/injury_prevention/choking_prevention_for_children.htm. Accessed 8/19/2010.

³ American Academy of Pediatrics Committee on Injury, Violence and Poison Prevention. Policy Statement Prevention of Choking Among Children. *Pediatrics*. 2010; 125; 601-607.

⁴ York State Department of Health, Health Advisory, September 1, 2010.

⁵ Companies Urged to Label Food Choking Hazards. Available at <http://www.cspinet.org/new/200307171.html> Accessed 7/1/2010.

⁶ Choking Prevention; Available at <http://injuryresearch.net/resources/1/FactSheets/ChokingPreventionFS.pdf>

⁷ Available at: http://www.aap.org/publiced/br_choking.htm. Accessed 8/19/2010.