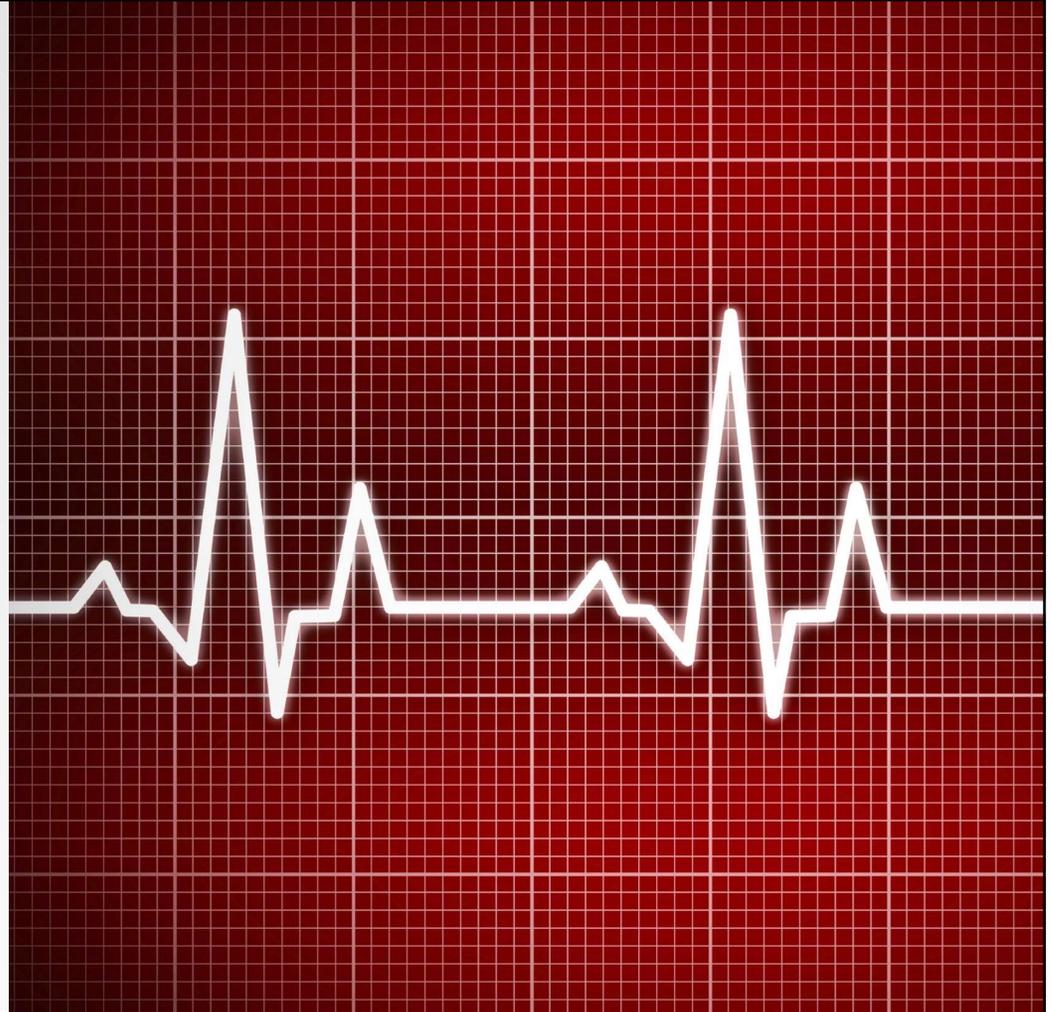


Emergencies, What to do...

CAPTAIN CHRISTOPHER HEATH

RISK MANAGEMENT

TOWN OF SHALLOTTE FIRE/RESCUE



Objectives

- Brunswick County EMS
- Town of Shallotte Fire/Rescue
- Service Areas
- Medical Emergencies
- What to do in an Emergency?
- Your Emergency Action Plan
- Preparing for a Disaster



Brunswick County EMS and Town of Shallotte Fire

- BCEMS provide paramedic level services to all of Brunswick County.
- Brunswick County Emergency Services also provides Mass Casualty Incident response along with Town of Shallotte Fire/Rescue and Town of Shallotte PD.
- Town of Shallotte Fire/Rescue provide fire, confined space rescue, high-angle rescue, technical hazardous material response, and medical first responder services to the Town of Shallotte and the surrounding area.

Service areas

Brunswick County EMS

- Coverage – 847 square miles
- Population served – 122,765
- Peak season population is estimated to be 2.6 times Brunswick County total year-round population.
- 10 ambulances
- Average response time – 9:44

Town of Shallotte Fire/Rescue

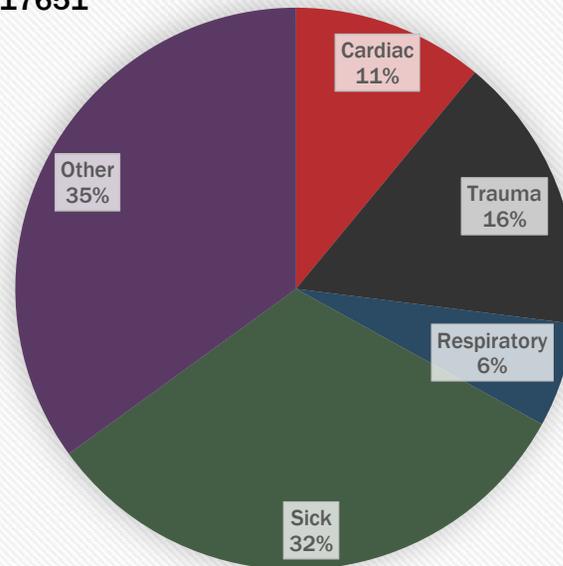
- Coverage – 28 square miles
- Population served – 4,304 not including ETJ areas
- Peak season is same as Brunswick County
- 1 engine, 1 tower, 3 tender
- Average response time – 4:30

Brunswick County EMS

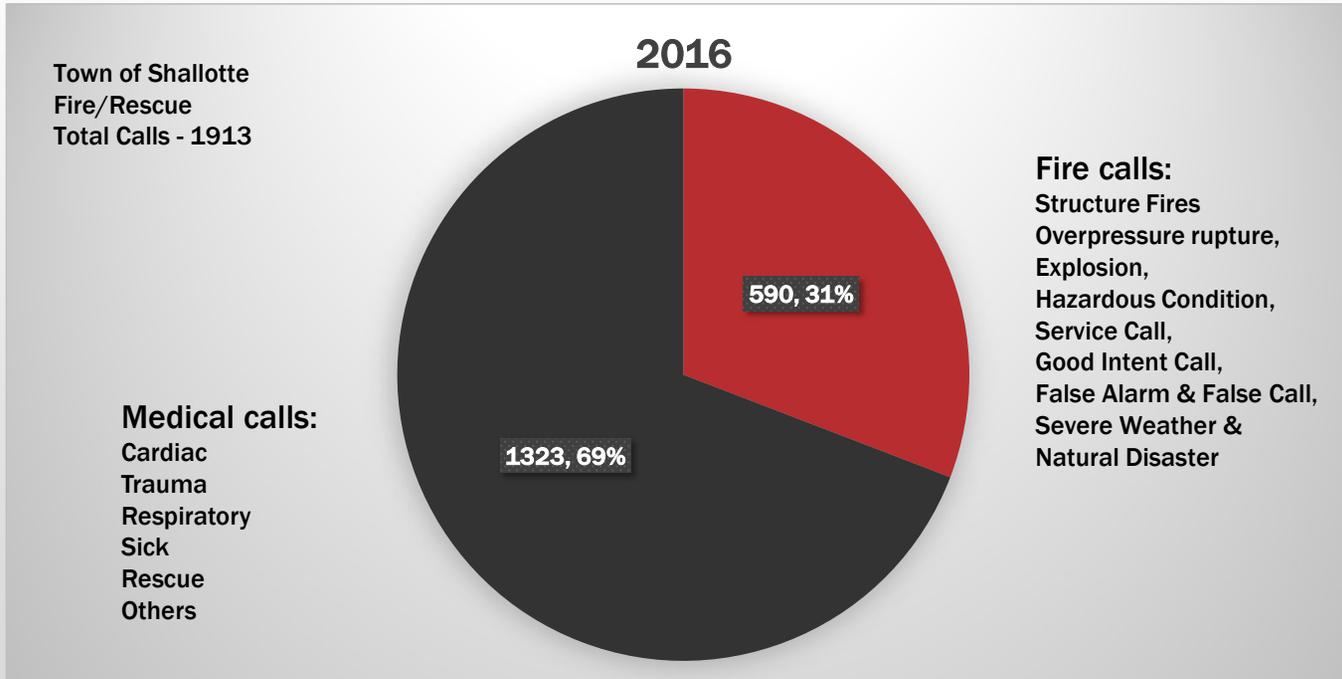
BCEMS 2016 Total Calls - 17651

Others represent:

Falls
Hemorrhages
Laceration
Diabetic
Abdominal Pains
Seizures
Assault
Stroke
Headache
Psychiatric
Unknown Problem
Special Operation



Town of Shallotte Fire/Rescue call volume



- There are times when a medical condition is so severe that it requires immediate, professional, medical assistance. But how can you tell the difference between a minor problem and a medical emergency—especially when minor problems may mimic the early warning signs of other serious and life-threatening conditions?
 - Shortness of Breath
 - No Breathing or Pulse
 - CPR
 - Chest Pain or Abdominal Pain
 - Unconsciousness
 - Possible Spinal or Neck Injuries
 - Disorientation
 - Sudden Severe Pain
 - Bleeding that can't be Controlled
 - Severe or Persistent Vomiting
 - Coughing or Vomiting Blood
 - Major Injury or Trauma
 - Feeling of Impending Doom
 - Sudden Vision Changes or Loss
 - Falls
 - Suicidal or Homicidal Feelings
 - If you are unsure about what to do in an Emergency

Medical Emergencies

When Should You Call
911?

▪ Shortness of Breath

- Most cases of shortness of breath are due to heart or lung conditions. Your heart and lungs are involved in transporting oxygen to your tissues and removing carbon dioxide, and problems with either of these processes affect your breathing.
- Shortness of breath that comes on suddenly (called acute) has a limited number of causes, including:
 - Asthma (bronchospasm)
 - Carbon monoxide poisoning
 - Cardiac tamponade (excess fluid around the heart)
 - Hiatal hernia (stomach pushes up on the diaphragm)
 - Heart failure
 - Low blood pressure (hypotension)
 - Pulmonary embolism (blood clot in an artery in the lung)
 - Pneumothorax (collapsed lung)
 - Pneumonia (pulmonary infection)
 - Sudden blood loss
 - Upper airway obstruction (blockage in the breathing passage)
- In the case of shortness of breath that has lasted for weeks or longer (called chronic), the condition is most often due to:
 - COPD (chronic obstructive pulmonary disease)
 - Heart dysfunction
 - Interstitial lung disease
 - Obesity

Medical Emergencies

- **No Breathing or Pulse**

- Sudden cardiac arrest is the sudden, unexpected loss of heart function, breathing and consciousness. Sudden cardiac arrest usually results from an electrical disturbance in your heart that disrupts its pumping action, stopping blood flow to the rest of your body.
- Sudden cardiac arrest is different from a heart attack, which occurs when blood flow to a portion of the heart is blocked. However, a heart attack can sometimes trigger an electrical disturbance that leads to sudden cardiac arrest.
- Sudden cardiac arrest is a medical emergency. If not treated immediately, it causes sudden cardiac death. With fast, appropriate medical care, survival is possible. Administering cardiopulmonary resuscitation (CPR), treating with a defibrillator — or even just compressions to the chest — can improve the chances of survival until emergency personnel arrive.

Medical Emergencies

- **Chest or Upper Abdominal Pain or Pressure**

- Chest pain comes in many varieties, ranging from a sharp stab to a dull ache. Some chest pain is described as crushing or burning. In certain cases, the pain travels up the neck, into the jaw, and then radiates through to the back or down one or both arms.
- Call **911** if you have abdominal pain so severe that you can't move without causing more pain, or you can't sit still or find a comfortable position.

**Medical
Emergencies**

- **Unconsciousness**

- Unconsciousness is when a person suddenly becomes unable to respond to stimuli and appears to be asleep. A person may be unconscious for a few seconds (fainting) or for longer periods of time.
- Common causes of unconsciousness include:
 - a car accident
 - severe blood loss
 - a blow to the chest or head
 - a drug overdose
 - alcohol poisoning
 - low blood sugar
 - low blood pressure
 - syncope (loss of consciousness due to lack of blood flow to the brain)
 - dehydration
 - problems with the heart's rhythm
 - neurologic syncope (loss of consciousness caused by a seizure, stroke, or transient ischemic attack)
 - straining
 - hyperventilating

Medical Emergencies

- **Possible Spinal or Neck Injuries**

- Anyone who experiences significant trauma to his or her head or neck needs immediate medical evaluation for the possibility of a spinal injury. In fact, it's safest to assume that trauma victims have a spinal injury until proven otherwise because:
 - A serious spinal injury isn't always immediately obvious. If it isn't recognized, more severe injury may occur.
 - Numbness or paralysis may develop immediately or come on gradually as bleeding or swelling occurs in or around the spinal cord.
 - The time between injury and treatment can be critical in determining the extent of complications and the amount of recovery.
- If you suspect that someone has a back or neck injury:
 - Don't move the injured person — permanent paralysis and other serious complications may result
 - Call 911 or your local emergency medical assistance number
 - Keep the person still

Medical Emergencies

- **Disorientation**

- Disorientation is an altered mental state. A person who's disoriented may not know their location and identity or the time and date.
- It's often accompanied with other symptoms such as:
 - confusion, or being unable to think with your normal level of clarity
 - delirium, or being confused and having disrupted attention
 - having delusions, or believing things even if they've been proven false
 - agitation, or feelings of aggressiveness and restlessness
 - hallucinating, or seeing or hearing things that aren't there
 - wandering around

Medical Emergencies

- **Sudden Severe Pain**

- **Make no mistake: Ignoring certain types of pain can have dire consequences. After all, if you miss the warnings of heart attack, you risk sudden death.**
- **Sudden severe pain such as:**
 - Chest Pain
 - Stomach / Abdominal Pain
 - Painful Urination
 - Back Pain
 - Severe Headache
 - Severe Leg Pain
- **These pain could be an indication of a more serious problem and should seek medical attention.**

Medical Emergencies

- **Bleeding that can't be controlled**
 - **Bleeding, or hemorrhage, is the name used to describe blood loss. Blood loss can occur in almost any area of the body. External bleeding happens when blood exits through a break in the skin. An injury can cause traumatic bleeding. Common types of traumatic injury include:**
 - abrasions or grazes that do not penetrate below the skin
 - hematoma or bruises
 - lacerations or incisions
 - puncture wounds from items like needles or knives
 - crushing injuries
 - gunshot wounds
 - **People who have bleeding disorders or take blood thinners should also seek emergency help to stop bleeding.**
 - **Seek medical help if:**
 - the person has gone into shock or has a fever
 - the bleeding cannot be controlled using pressure
 - the wound requires a tourniquet
 - the bleeding was caused by a serious injury
 - the wound may need stitches to stop bleeding
 - foreign objects are stuck inside the wound
 - the wound appears to be becoming infected, such as swelling or leaking a yellow or brown fluid, or has redness
 - the injury occurred due to a bite from an animal or human

Medical Emergencies

- **Severe or Persistent Vomiting**
 - Vomiting commonly occur with any dysfunction of the digestive tract but are particularly common with gastroenteritis. A less common digestive tract disorder is obstruction of the intestine, which causes vomiting because food and fluids back up into the stomach because of the obstruction. Many drugs, including alcohol, opioid analgesics (such as morphine), and chemotherapy drugs, can cause nausea and vomiting. Toxins, such as lead or those found in some foods and plants, can cause severe nausea and vomiting.
 - Certain symptoms and characteristics are cause for concern. They include:
 - Signs of dehydration (such as thirst, dry mouth, little or no urine output, and feeling weak and tired)
 - Headache, stiff neck, confusion, or decreased alertness
 - Constant abdominal pain
 - Tenderness when the abdomen is touched
 - Distended (swollen) abdomen

Medical Emergencies

- **Coughing or Vomiting Blood**
 - Coughing up blood is nearly always a symptom of a disease. The blood can come from the throat, lungs, or stomach. The medical term for coughing up blood is hemoptysis.
 - Blood that comes from the lungs or respiratory tract will often appear bubbly. This is because it has been mixed with air and mucus in the lungs. The color can range from rust-colored to bright red. The mucus may be entirely tainted with blood or only contain streaks of blood mixed with mucus.
 - Examples of common and highly treatable causes of coughing up blood include:
 - irritation of the throat from excessive coughing — this is in many cases attributable to irritation from smoking cigarettes
 - bronchitis
 - chronic obstructive pulmonary disease (COPD), which can include chronic bronchitis or emphysema
 - pneumonia

Medical Emergencies

- **Major Injury or Trauma**

- Traumatic injury is a term which refers to physical injuries of sudden onset and severity which require immediate medical attention. The insult may cause systemic shock called “shock trauma”, and may require immediate resuscitation and interventions to save life and limb. Traumatic injuries are the result of a wide variety of blunt, penetrating and burn mechanisms. They include motor vehicle collisions, sports injuries, falls, natural disasters and a multitude of other physical injuries which can occur at home, on the street, or while at work and require immediate care.

- Examples includes:

- Traumatic brain injury
- Spinal cord injury
- Spine fractures
- Amputation - traumatic
- Facial trauma
- Crush injury
- Concussion
- Broken bone
- Jaw - Broken or dislocated
- Skull fracture
- Cuts and puncture wounds
- Collapsed lung
- Burns
- Electrical injury

Medical Emergencies

- **Feeling of Impending Doom**

- The following causes of Feeling of impending doom are diseases or medical conditions that affect more than 10 million people in the USA:
 - Coronary artery disease
 - Depression
 - Anaphylaxis
 - Aortic dissection
 - Cardiac arrhythmia
 - Herbal Agent overdose
 - Myocardial infarction
 - Panic attack
 - Pheochromocytoma (tumor in adrenal glands)
 - Postpartum depression

Medical Emergencies

- **Sudden Vision Changes or Loss**

- While many eye problems can occur at any age, they often are more common in older individuals. Unfortunately, aging also increases your risk for certain types of sight-threatening eye conditions that can lead to blindness.
- You should see a doctor as soon as possible if you experience:
 - Eye floaters
 - A sensation that a dark curtain has settled across your field of view.
 - Sudden eye pain, redness, nausea and vomiting.
 - Double vision, double images or "ghost" images.
 - Sudden blurry vision in one eye.
 - A narrowing of your field of view.
 - A gradual loss of central vision.
 - Cloudy and blurred eyesight.
 - Blind spots in your field of view.

Medical Emergencies

- Falls

- A fall is defined as an event which results in a person coming to rest inadvertently on the ground or floor or other lower level. Fall-related injuries may be fatal or non-fatal though most are non-fatal. Older people have the highest risk of death or serious injury arising from a fall and the risk increases with age. For example, in the United States of America, 20–30% of older people who fall suffer moderate to severe injuries such as bruises, hip fractures, or head traumas. But aging alone doesn't make people fall. Diabetes and heart disease affect balance. So do problems with circulation, thyroid or nervous systems. Some medicines make people dizzy. Eye problems or alcohol can be factors. Any of these things can make a fall more likely.

Medical Emergencies

- **Suicidal or Homicidal Feelings**

- Suicidal or Homicidal feelings is not a disease itself, but may result from other illnesses such as delirium and psychosis. Psychosis, includes substance-induced psychosis (e.g. amphetamine psychosis) and the psychoses related to schizophreniform disorder and schizophrenia. Delirium is often drug induced or secondary to general medical illnesses.
- Treatment of suicidal/homicidal ideation can be puzzling due to the fact that several medications have actually been linked to increasing or causing suicidal/homicidal ideation in patients. Therefore, several alternative means of treating suicidal/homicidal ideation are often used. The main treatments include: therapy, hospitalization, outpatient treatment, and medication/other modalities.

Medical Emergencies

- If you are unsure about what to do in an emergency situation
- If you are ever unsure if something is an emergency, it is better to call and let the 911 operator decide. Any physical or behavioral condition that comes on suddenly within 24 hours in an older adult is a medical emergency, and should be evaluated in an emergency room. Symptoms in older adults are often very nonspecific.

Medical Emergencies

What to do in an Emergency?

- During an emergency situation, how you react, and how you care for the injured individual, can mean the difference between life and death. Do you know how to respond in an emergency?
- **The 3Cs For Reacting to an Emergency** - The three basic steps to responding to a medical emergency include checking the scene and the victim, calling 911 or other emergency services, and caring for the victim. Let's take a closer look at each step.

- **Check the Scene and the Victim**
 - Is the Scene Safe?
 - What happened?
 - How many victims are there?
 - Can bystanders help?
- **Call 911**
 - State the location of the emergency
 - If possible, give the dispatcher the phone number you're calling from
 - State your name
 - Tell the dispatcher what happened
 - Tell the dispatcher how many people are involved
 - Explain the condition of the victim(s)
 - Tell the dispatcher what, if any, first aid is being given
- **Care for the victim**
 - Airway – tilt the head back
 - Breathing – check for breathing
 - Circulation – check for pulse

What to do in an Emergency?

Your Emergency Action Plan

- By their very nature, medical emergencies happen quickly and without warning. Having an action plan, the right tools and resources, and arming yourself with key pieces of knowledge can mean the difference between life and death when seconds count.
- Your emergency action plan should include four key elements—prevention, preparation, recognition, and decision-making.

- **Preventing Emergencies**
 - Always wear a seatbelt
 - Eat a balanced diet
 - Follow safety instructions when cooking, working outside, etc.
 - Wear protective gear (helmets, pads, etc.)
 - Never drink and drive
 - Avoid all tobacco products
 - Exercise regularly
- **Preparing for Emergencies**
 - Keep a well-stocked first aid kit at home, at work, and in your car (see the following section for contents).
 - Understand what constitutes an emergency (Refer to the section entitled, **When Should You Call 911?** for more information).
 - Keep written records of important medical information (File of Life).
 - Take a first aid and CPR class.
 - Post emergency numbers near your telephone.

Your Emergency Action Plan

- **Recognizing Emergencies**
 - Shortness of Breath
 - No Pulse or Breath
 - Chest or Upper-Abdominal Pain or Pressure
 - Unconsciousness
 - Possible Spinal or Neck Injury
 - Disorientation
 - Sudden Severe Pain
 - Bleeding that Can't be Controlled
 - Severe or Persistent Vomiting
 - Coughing or Vomiting Blood
 - Falls
 - Major Injury or Trauma
 - Feeling of Impending Doom
 - Sudden Vision Changes or Loss
 - Suicidal or Homicidal Feelings
 - If You Are Unsure About What to Do

**Your Emergency
Action Plan**

- **Keeping Medical Information**
 - When emergency strikes, there's little time to react. Having important information such as key phone numbers or emergency instructions at hand during an emergency can save valuable time when seconds count.
 - In addition to important emergency contacts, other important information and medical forms should be kept on hand and ready for emergency personnel. Forms to keep on hand include:
 - Medical Treatment Consent Forms
 - Emergency Information for Children with Special Needs
 - Personal Medical History Form (File of Life)
 - Medical Contact Form

Your Emergency Action Plan

▪ First Aid Kits

▪ What to include in your First Aid Kits.

- Having a well-stocked first aid kit will enable you and your family to respond appropriately when faced with an emergency. The American College of Emergency Physicians recommends that you keep the following items in your first aid kit:
 - A first aid manual
 - Emergency phone numbers and information
 - Pain relievers (acetaminophen, ibuprofen, and aspirin—keep at least two tablets of aspirin at all times in case of heart attack)
 - Bandages of assorted sizes
 - Triangular bandages (to wrap injuries or create an arm sling)
 - Elastic wraps (to wrap wrist, ankle, knee, and elbow injuries)
 - Gauze in rolls and gauze pads in 2 and 4 inch sizes
 - Disposable, instant-activating cold packs
 - Sharp scissors with rounded tips
 - Antiseptic wipes
 - Antibiotic ointment
 - Adhesive tape
 - Hydrogen peroxide
 - Tweezers
 - Rubber gloves
 - Thermometer
 - Petroleum jelly
 - Calamine lotion
 - Hydrocortisone cream
 - Decongestants
 - Airway Barrier Device

Key Point: Remember to keep a first aid kit in the three most common places you'll need one – at work, at home, and in the car.

Your Emergency Action Plan

Preparing for a Disaster

- **Disaster Preparedness**
 - Emergencies and disasters are an unfortunate part of life. You can increase your comfort and chances of survival during an emergency or disaster by taking five key steps now, before a disaster strikes.
 - Assemble an Emergency Kit
 - Make a Family Communication Plan
 - Continually Prepare
 - Plan for your pets
 - Escape Routes and Safe Places

- **Assemble an Emergency Kit.**
 - An emergency kit should enable you to survive comfortably for at least three days, until after a biological, radiological, or chemical attack/emergency has passed. You'll need:
 - Water
 - Flashlight
 - Canned/dried food
 - A change of clothes
 - Warm blankets
 - Plastic garbage bags
 - Battery powered radio
 - Extra batteries
 - First aid kit
 - Duct tape
 - Map of the area
 - Whistle
 - Cell phone/extra battery
 - Cash and credit card
 - Photo ID
 - Spare car keys
 - Utility knife/pliers
 - Waterproof matches
 - Car charger for all your rechargeables

Preparing for a Disaster

- **Make a Family Communication Plan.**
 - If an emergency or disaster strikes, be sure everyone in your family is prepared and knows what to do. Consider the following items as part of your communication plan:
 - Make sure family members can stay in touch during an emergency or disaster—regardless of location.
 - Include out-of-state friends or relatives in your communication plan.
 - Keep emergency numbers near the phone and with each family members.
 - Select a “safe room” where the family will meet during a disaster or emergency. An interior room, above ground, with few doors and windows is the best choice.
 - If the house is unsafe (in the case of a fire for example), choose a safe location outside the house in which to meet.

Preparing for a Disaster

- **Continually Prepare.**
 - Continually preparing and practicing for disasters and emergencies will better ensure your survival and health during an emergency or disaster. Keep the following in mind as you continually prepare for emergencies and disasters:
 - Practice and revise your disaster communication plan.
 - Seek out news stations that will be helpful in case of an emergency.
 - Become certified in first aid and CPR.
 - Replace supplies after they are used or expire.
 - Be familiar with your insurance policies.

**Preparing for a
Disaster**

- **Plan for your pets.**
 - Take your pets with you if you evacuate. However, be aware that pets (other than service animals) usually are not permitted in emergency public shelters for health reasons. Prepare a list of family, friends, boarding facilities, veterinarians, and “pet-friendly” hotels that could shelter your pets in an emergency.
- **Escape Routes and Safe Places.**
 - In a fire or other emergency, you may need to evacuate on a moment’s notice. Be ready to get out fast. Be sure everyone in your family knows the best escape routes out of your home as well as where the safe places are in your home for each type of disaster (i.e., if a tornado approaches, go to the basement or the lowest floor of your home or an interior room or closet with no windows).

Preparing for a Disaster

- **Action Checklist**

- Utilities
- Fire Extinguisher
- Smoke Alarms
- Insurance Coverage
- First Aid/CPR/AED
- Inventory Home Possessions
- Vital Records and Documents
- Reduce Home Hazards
 - Defective wiring, leaky gas connection
 - Lower heavy objects, mirrors & pictures
 - Secure tall objects (cabinets, bookshelves, etc.)
 - Store flammable products safely (in metal containers)
 - Clean chimney, flue pipe, connectors and gas vents
- To sign up for emergency alerts, go to:
 - <http://www.brunswickcountync.gov/emergency/ems/>

Preparing for a Disaster