



Co-funded by the  
Erasmus+ Programme  
of the European Union

# FIRST AID FOR SENIORS

FIRST EC2U SUMMER SCHOOL

*SMART AGEING AND HEALTHY LIFE*

GLADE – VIRTUAL INSTITUTE FOR GOOD HEALTH AND WELL-BEING,  
20-26 September, 2021

Raluca Mihaela Onose  
Paul Lucaci  
Mihai-Alexandru Citea  
23 September, 2021

# Dehydration



## Background

If the excess water loss from vomiting and diarrhea is not promptly replenished, an elderly may develop dehydration. Dehydration can begin to develop when a person loses as little as 1% of his body weight through fluid loss. Without prompt treatment, the elderly will go into heat exhaustion and shock.

Common causes of dehydration include excessive sweating (exercise, fever, hot weather), diarrhea, vomiting and excessive urine output due to medical conditions. Elderly with chronic diseases such as diabetes, heart failure, and kidney diseases is prone to dehydration. Hot humid weather, physical disability and negligence by caretaker are also risk factors.



## Symptoms and signs

- Dry mouth & dry eyes
- Dry and/or cracked lips
- Thirst
- Headache (lightheadedness)
- Dark urine
- Reduced urine output
- Cramping



## As a first aider

- Recognize red flag signs and manage as medical emergency
- Rehydrate and monitor hydration status

### Do's

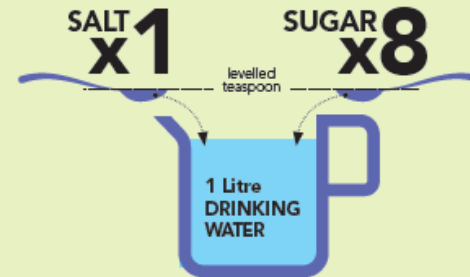
1. Give plenty of fluid to drink. Water is usually sufficient but oral rehydration solutions can help with salt replacement.

#### Oral Rehydration Salt

Oral rehydration therapy is the administration of fluid by mouth to prevent or correct the dehydration that is a consequence of diarrhoea. In addition to water replenishment, oral rehydration solution is designed to replace the lost ions and correct any underlying acid-base imbalance due to excess water loss. Oral rehydration salts are available commercially for purchase. Alternatively, they can be prepared at home with simple ingredients. When preparing oral rehydration solution, you MUST follow the instructions on the packet. Adding too much or too little water may worsen the patient's condition.

## How to make Oral Rehydration Solution from Salt & Sugar

- a / Wash your hands
- b / Measure **1 litre of drinking water** into a clean container
- c / Measure **1 levelled teaspoon of SALT** and **8 levelled teaspoons of SUGAR** into the water. (A levelled teaspoon is where the salt or sugar is **FLAT** in the spoon, **NOT piled up**)
- d / Mix the salt and sugar into the water well until you cannot see the salt or sugar at the bottom of the container
- e / Taste the solution. It should never taste very salty. **DO NOT boil up** this solution once it is made up
- f / Give the drink to the elderly with diarrhoea



Treatment should continue until the diarrhea stops. Patients should be allowed to drink freely as they need. Rehydration is generally adequate when the person no longer feels thirsty and has a normal urine output

2. Perform stretching & massage to relieve muscle cramps
3. Monitor the input output balance and hydration status of the elderly
4. Seek medical attention immediately if the condition does not improve

### Don'ts

Consume milk or milk products, alcohol and caffeine

# Constipation



## Background

Constipation refers to infrequent passage of hard stools. It can be caused by lack of fiber or fluid intake, inadequate physical activities, intestinal diseases or diseases such as overactive parathyroid, scleroderma (a connective tissue disease), Parkinsonism, stroke and diabetes. Medications such as antacid and overuse of laxatives can also cause constipation.

Constipation can be complicated by fecal impaction, in which the rectum becomes filled with large, dried and hardened masses of stool that cannot be passed. It may be further complicated by injury to the rectal wall, bleeding and even perforation.



## As a first aider

- Recognize red flag signs as well as fecal impaction and manage as medical emergency
- Relieve the patient's symptom by laxative for simple case

## Do's

1. Increase fluid intake (extra 2 to 4 glasses of water per day)
2. Drink warm liquid in the morning
3. Increase fiber intake (fruit, vegetables and cereal)
4. Use mild stool softener or laxatives for NO LONGER than 2 weeks

## Don'ts

Attempt to dislodge an impacted stool with your fingers at home



## Symptoms and signs

- Sense of incomplete evacuation
- Hard and small stool
- Swollen abdomen
- Abdominal pain



### Background

Choking occurs when the elderly's airway is partially or completely blocked by a foreign body. The foreign body causing choking is commonly a food bolus, though it can be anything like a broken denture. The elderly is prone to choking for various reasons. Their chewing mechanism may be impaired because of dental problem. Swallowing is also affected because of pre-existing stroke. A demented elderly is also at risk because of loss of coordination of mastication and swallowing.



### Symptoms and signs

- During a meal,
- Sudden coughing
  - Sudden shortness of breath
  - Difficulty speaking
  - Making high-pitched noise while breathing
  - Clutching the throat with one or both hands



### As a first aider

Apply standard maneuver to remove the foreign body

#### Do's

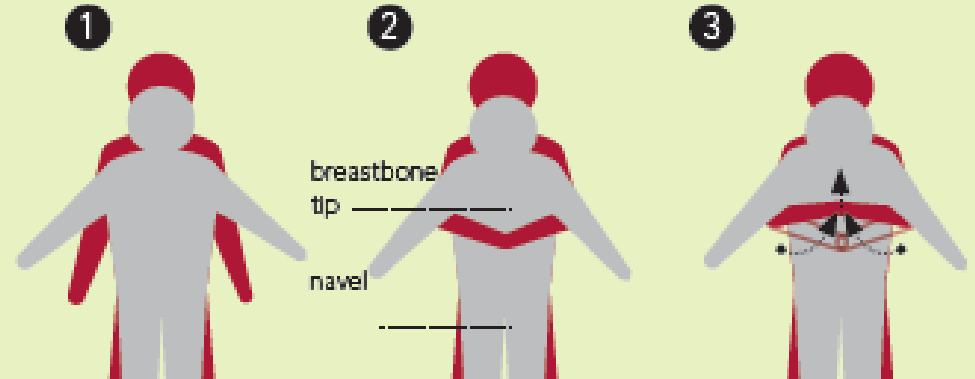
1. Call for help
2. **If the elderly is conscious and able to cough:**
  - Encourage the elderly to cough
  - Stay with the elderly and monitor
3. **If the patient is conscious but unable to cough or speak, or begins to exhaust:**
  - a / Back blows
    - 1 Position yourself behind the elderly, place one arm diagonally across the chest
    - 2 Bend the elderly forward by 90 degrees
    - 3 Strike the back between shoulder blades with heel of the hand
    - 4 Repeat the above steps 5 times



# Choking and aspiration

## b / Abdominal thrusts

1. Position yourself behind the elderly
2. Locate the elderly's navel
3. Make a fist and place it below breastbone tip and above navel
4. Grab the fist and give a quick upward thrust into the abdomen
5. Repeat the above steps 5 times



c / Perform the above 2 maneuver consecutively

# Nose bleeding

Below are some of the causes of nose bleeding:

## Local causes

- A blow to the nose
- Sneezing, picking or blowing the nose
- Rhinitis
- Rarely tumor

## Systemic causes

- Bleeding disorder, use of anti-clotting drugs (eg: aspirin, NSAIDs, warfarin, Plavix)

It is associated with older age, hypertension and dry weather.



## Symptoms and signs

- Bleeding from nostril, on one side or both
- Blood stained sputum and saliva when blood from the nose drips down to the pharynx posteriorly
- Nausea and vomiting if a lot of blood is swallowed
- Bloody tear because of the communication between the nose and eyes via the nasolacrimal duct
- Dizziness and other signs of blood loss, especially the amount of blood loss is great

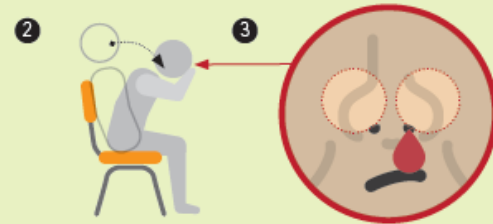


As a first aider

- Stop or reduce blood loss
- Maintain a patent airway and avoid aspiration of blood

## Do's

1. Reassure and keep the elderly calm
2. Sit the elderly up and tilt the head forward to allow the blood to drain from nostrils
3. Ask the elderly to breathe through mouth and pinch the soft parts (just below the nasal bridge) of nose for up to 10mins. Do it by the first aider if the elderly is unable to pinch his or her nose



4. Use a clean cloth or tissue to mop up any dribbling
5. If bleeding continues, re-apply pressure for another 10 minutes
6. Once bleeding stops, patient remains leaning forward and cleans around the nose with lukewarm water
7. Seek medical help if bleeding cannot be stopped by local pressure for around 20 minutes
8. Arrange medical consultation if there are associated symptoms mentioned above

## Don'ts

Let the elderly tip the head back since blood may then run down the throat and induce vomiting or choking

# Seizures



## Background

Seizure consists of involuntary muscle contractions due to disturbance in electrical activity of the brain. It presents with sudden loss of consciousness and jerking of the extremities in most cases. In rare cases, consciousness is preserved.

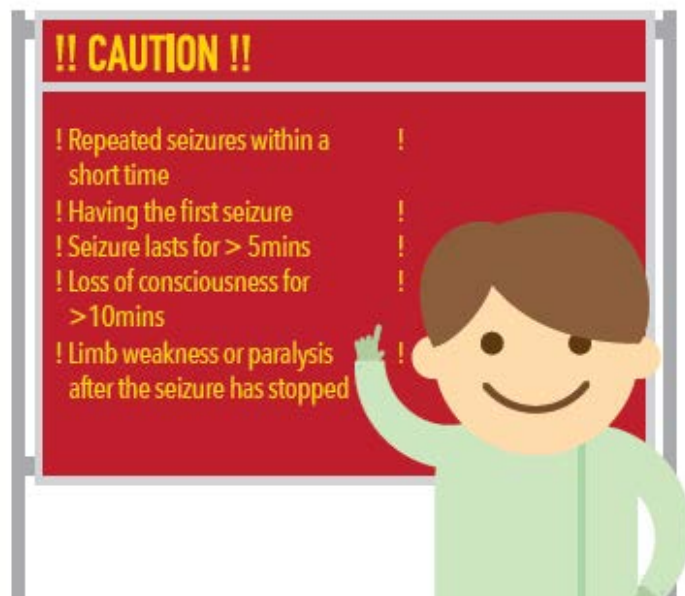
In elderly, the most common causes of seizure include epilepsy, Alzheimer's disease, stroke and medication. Seizure can also be caused by head injury, brain-damaging disease (neurodegenerative diseases, tumor, and infection), and lack of nutrients in brain (hypoglycemia, acute alcohol intoxication or drug withdrawal)

## and signs

- Convulsive movements (clenched jaw with noisy breathing, facial twitching, tongue-biting, drooling/foaming saliva)
  - Possible loss of bladder or bowel control
  - Tiredness and sleepy after seizure
- lips, red and puffy face/neck)

The elderly may have brief warning period (aura) just before seizure, for example, strange feeling, and special smell/taste. He/she may regain consciousness in a few minutes, and may be unaware of the actions.

# Seizures



- Look for red flags and manage as medical emergency
- Protect the seizing elderly from injury
- Maintain a patent airway and smooth breathing during and after the seizure when the elderly is not fully conscious

## Do's

1. Seek emergency medical help as soon as possible
2. Protect the elderly - clear away any potentially dangerous objects to prevent injury of the elderly, pad the area with clothing or pillows if the elderly is close to wall or hard objects, ask bystanders to keep clear
3. Protect the head and loosen tight clothing around neck
4. Lie the elderly down in recovery position (if not suspecting a spinal injury)
5. Monitor closely the responsiveness level and breathing; open airway
6. Note the time of onset and duration of seizure
7. Check for any injuries and apply necessary first aid

## Don'ts

1. Move the elderly unnecessarily
2. Put anything in his mouth or attempt to restrain him or her during a seizure so as to prevent from inducing injuries
3. Give food and drinks unless the elderly is fully conscious

# Soft tissue injuries



As a first  
aider



## Background

Soft tissue injuries can be classified into bruises, strains and sprains. Injuries can either be acute, which happens suddenly, or overuse injury, which is caused by repetitive tasks over a long period of time or bad postures. Ankle sprain and back strain are the most common soft tissue injury as a result of improper physical activity.

Bruises can be resulted from an injury by a blunt force leading to bleeding in the soft tissue. Strains can be due to overstretching of muscles and tendons leading to tearing of muscles & tendons. Sprains can be caused by forcing joints beyond normal range of motion leading to overstretching of ligaments.



## Symptoms and signs

- Bruise
- Pain
- Swelling
- Limited movement in injured part

- Relieve symptoms by medication and physical method

## Do's

1. Soft tissue injuries should be treated with "RICE":

**Rest** Rest the injured part and avoid moving it  
**Ice** Apply ice or cold compress (wrapped in a towel) on the injured part

**Compression** Provide comfortable support

**Elevation** Elevate the injured limb

2. Simple painkillers such as paracetamol could be used to relieve pain as instructed by doctor

## Don'ts

1. Move the injured part unnecessarily

2. Apply heat to the injured part

3. Apply herbs without prior medical consultation



# Common pain relief methods

**Medication** Simple analgesics can be used to relieve pain.

a / Paracetamol should be started with dose of 500-1000mg (1-2 tablets). If instructed by doctor, higher dose can be taken.

b / Alternatively, NSAIDs such as ibuprofen can be used. However, some NSAIDs may cause stomach bleeding and should be avoided for people who have bleeding disorders or gastrointestinal symptoms.



**Cold pad**

Cold pad is used to decrease inflammation. Used first during injury. Avoid direct contact with ice to prevent frostbite.



**Heat pad**

To increase circulation in the area, so that tissue repair and heal can take place more efficiently. Hot towel (40 degrees) can be applied on the affected surface. For trauma, it is best used after inflammation has subsided (use when the affected area is no longer hot).



# Fractures



As a first  
aider

- Recognize that there is a fracture and seek medical consultation as soon as possible
- Prevent further injury

## Do's

1. Immobilize the injured limb with a splint if available
2. If no splint is available, use a triangular bandage to support the injured limb
3. Cover the wound, if present, with a clean dressing

## Don'ts

1. Move the injured limb unnecessarily
2. Apply heat locally
3. Apply herbs locally
4. Try to reduce any deformity
5. Try to push back any visible bone if it is an open fracture



## Background

Fractures usually occur in acute events such as falls and accidents. It can also be a form of overuse injury. Elderly is prone to fracture even in trivial injuries due to brittle bones. Common fracture sites include the hip, upper arm, wrist, spine and ribs.

Elderly are prone to fall as a result of reduced muscle power and balancing ability. With aging, the density of bone drops (osteoporosis) and the bones become brittle. Elderly

can fracture their upper end of thigh bone from a simple move or minor injury. Hip fracture is one of the top injuries in elderly. Wrist fracture is another common injury from a fall on to an outstretched hand resulting in a forced backward displacement of hand and fracture of the bone in forearm.

Osteoporosis, physical inactivity, smoking, drinking and steroid therapy are risk factors of fractures.

## Limb Spl

### to check I

æ site of possible fracture

k circulation below fracture site

Symptoms & signs of Poor circulation

- Weak/absent of pulse of the elderly below the fracture site, e.g. radial pulse.
- Pale, white or bluish skin color
- Cooler temperature of the injured limb
- Numb or tingling of limbs



## Symptoms and signs

- Snap sound heard as bone breaks
- Pain
- Swelling
- Deformity at fractured site
- Inability to move the injured limb
- For an open fracture, a wound, possibly with bone visible

# Blood Pressure Range

Blood Pressure Category for Adults 65+	Systolic mm Hg	Diastolic mm Hg
Low blood pressure	90 or lower	60 or lower
Normal blood pressure	Lower than 120	Lower than 80
Elevated blood pressure	120 – 129	Lower than 80
High blood pressure stage 1	130 – 139	80 – 89
High blood pressure stage 2	140 or higher	90 or higher
High blood pressure crisis — see your doctor immediately	180 or higher	120 or higher

# How Older Adults Can Maintain a Healthy Blood Pressure

Maintaining a healthy blood pressure doesn't have to be complicated. Simple lifestyle changes can help:

- **Exercise.** National guidelines recommend adults of all ages engage in at least 150 minutes of moderate physical activity each week. If mobility or health conditions are a problem, older adults should try to be as physically active as possible.
- **Lose weight.** If your loved one is overweight, every 2 pounds lost can help reduce blood pressure by 1 mm Hg.
- **Eat a heart-healthy diet low in salt.** Eat fruits, vegetables, whole grains, poultry, fish and low-fat dairy foods. Try to limit sodium to no more than 2,300 milligrams per day.
- **Avoid drinking alcohol.** Alcohol can raise your blood pressure. If your loved one chooses to drink alcoholic drinks, limit it to no more than one drink a day for women and up to two drinks a day for men.
- **Don't smoke.** Tobacco damages your artery walls. If your loved one smokes, ask their doctor how to help them quit.
- **Manage stress.** Try simple relaxation techniques, such as deep breathing exercises or meditation.

# Heart rate

<b>WOMEN'S RESTING HEART RATE CHART</b>						
<b>AGE</b>	<b>18 - 25</b>	<b>26 - 35</b>	<b>36 - 45</b>	<b>46 - 55</b>	<b>56 - 65</b>	<b>65+</b>
<b>ATHLETE</b>	54-60	54-59	54-59	54-60	54-59	54-59
<b>EXCELLENT</b>	61-65	60-64	60-64	61-65	60-64	60-64
<b>GOOD</b>	66-69	65-68	65-69	66-69	65-68	65-68
<b>ABOVE AV</b>	70-73	69-72	70-73	70-73	69-73	69-72
<b>AVERAGE</b>	74-78	73-76	74-78	74-77	74-77	73-76
<b>BELOW AV</b>	79-84	77-82	79-84	78-83	78-83	77-84
<b>POOR</b>	85+	83+	85+	84+	84+	84+

<b>MEN'S RESTING HEART RATE CHART</b>						
<b>AGE</b>	<b>18 - 25</b>	<b>26 - 35</b>	<b>36 - 45</b>	<b>46 - 55</b>	<b>56 - 65</b>	<b>65+</b>
<b>ATHLETE</b>	49-55	49-54	50-56	50-57	51-56	50-55
<b>EXCELLENT</b>	56-61	55-61	57-62	58-63	57-61	56-61
<b>GOOD</b>	62-65	62-65	63-66	64-67	62-67	62-65
<b>ABOVE AV</b>	66-69	66-70	67-70	68-71	68-71	66-69
<b>AVERAGE</b>	70-73	71-74	71-75	72-76	72-75	70-73
<b>BELOW AV</b>	74-81	75-81	76-82	77-83	76-81	74-79
<b>POOR</b>	82+	82+	83+	84+	82+	80+



Thank you !

[contact@ec2u.eu](mailto:contact@ec2u.eu)

[www.ec2u.eu](http://www.ec2u.eu)

