

**BASIC
NOTIONS**

First Aid: Be a Hero

Created by **McGill** | Ingram School
of Nursing
students in collaboration with



Montreal City
Mission
communautaire de Montréal

Plan for the evening

01

Introduction

02

Topics

03

Case studies

04

- Open questions
- Survey

Introduction



Raluca

Nurse

Melissa

Nurse

Wedcher

Nurse

Learning Objectives in First Aid



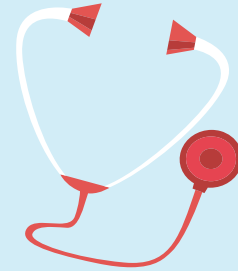
1.

Know how to preserve life in different situations



2.

Prevent the illness or injury from becoming worse



3.

Promote recovery

BASIC NOTIONS

Topics

- Seizures
- Sprains, Strains, Dislocation, Fractures
- Accidental ingestion of chemicals
- Asthma
- Bleeding
- Dehydration
- COVID-19





**Your children can
participate too!**

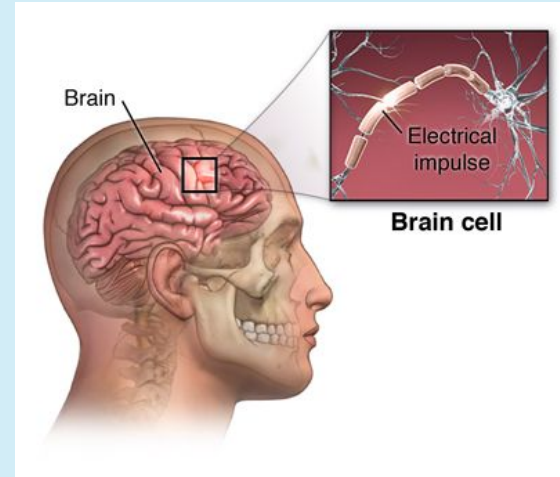
01

Seizures



Seizures

- Seizures occur when brain cells fire electrical discharges uncontrollably which interrupts normal function.
- Epilepsy : at least 2 seizures more than 24 hrs apart
- Seizures are often a sign of an underlying illness.



What causes seizures?



Fever



Low blood sugar



Dehydration



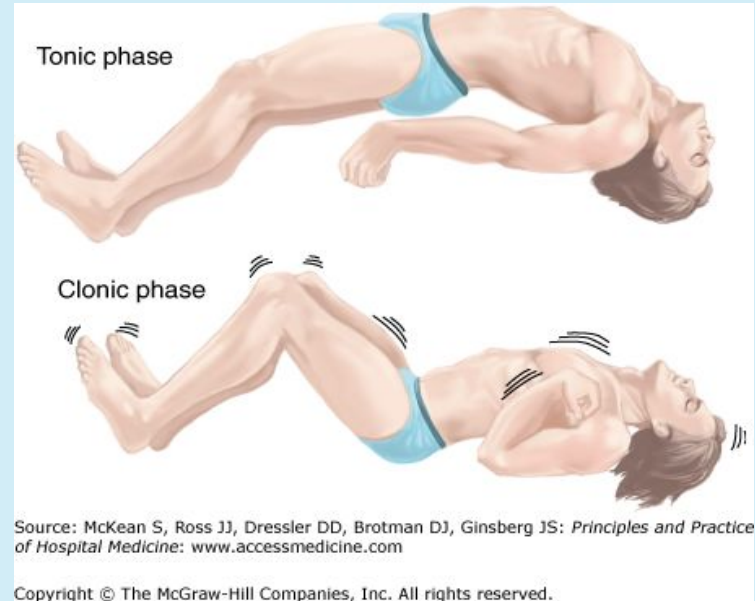
Infections

Many more....
Births injury, brain tumours,
trauma, low oxygen levels

Types of Seizures

Tonic Clonic:

- Most common and most dramatic.
- Loss of consciousness and falling to the ground.
- Tonic (stiffening of the body) for 10-20 seconds, and subsequent jerking (clonic) of the body for another 30-40 seconds.
- Excessive salivation, tongue biting, incontinence.





Tonic Clonic



Types of Seizures



Myoclonic:

- Sudden excessive jerking of the body



Absence

- Usually occurs in children and rarely goes beyond adolescence.
- It manifests often as a brief staring spell and usually goes unnoticed. Lasts for a few seconds



Atonic:

- Loss of muscle tone and suddenly falls

What to do:

Know when to call 911

Most seizures don't require medical care because they are self-limiting. Call 911 if :

- 1st time seizure
- Difficulty breathing or waking up after the seizure
- Seizure lasts more than 5 mins (status epilepticus)
- Person is injured during the seizure
- The person has underlying problems (ex: pregnancy, cancer, heart disease)



What to Do

- Stay with the person until seizure ends and they are fully awake
- Clear the area around the person to prevent injury or harm (if the person is standing or sitting ease to the floor)
- Remove eyeglasses, loosen restrictive clothing
- Turn the patient on the side to help them breathe (vomitus, secretions)
- Time the seizure and recall/note what happens during
- Place pillow or blanket under the person's head
- **Do not** hold them down, nor restrict their movement
- **Do not** place anything in the mouth
- **Do not** offer food or water until fully awake



What To Do



What To Do: Febrile Seizure in Children

One of the most common childhood conditions in
A fever of $>38.0^{\circ}\text{C}$ can cause seizure in children (often
presented as tonic clonic as previously discussed)

- Call your doctor or call InfoSanté 811
- Administer children tylenol or ibuprofen
- Provide adequate fluids when the child is conscious
- If the child still has a fever sponge the child
with lukewarm water for 20 minutes and let the
wet skin exposed to air to cool the temperature
of the child (but be careful)
- **Do not give aspirin** (serious bad
consequences)
- Follow all safety tips when the seizure is happening



Case Study Seizure

Joshua is a 10 year-old pupil who is playing soccer with his friends. At one point during the game, you see that he stops playing and looks strange. He sits on the ground and all in a sudden falls backward and starts to shake. You realize that he is having a seizure. What would you do while he is having the seizure? Choose 2 answers

- a) Stay with with him until the seizure ends
- b) Hold him down
- c) Remove any objects around him to prevent him from getting hurt



02

Sprain vs Strains Broken Bones vs Dislocation



Sprains and Strains



- Most common types of muscle/bone injuries
- Abnormal stretching & twisting during rigorous activities (soccer, basketball, running, etc.)
- Could happen to any muscles and joints in the body
- Pain , swelling, bruising, decrease function

Strain:

- Injury to the muscle/tendon
- Slight rupture to complete rupture



Sprain:

- ➔ Injury to ligament/joint, most often ankle and knee
- ➔ From a small tear to complete tearing of the ligament
- ➔ Can be extremely painful

What to do

First and foremost, **PREVENTION**

- Warming up exercises before and stretching after significantly reduce the risk of sprains and strains.

When it happens: **RICE**

- RICE can decrease the inflammation and pain of the area

Rest: limit movement and rest as soon as pain is felt

ICE: reduces pain and swelling. Apply immediately after the injury, no more than 20 mins per application and not directly on the skin

Compression: helps limit swelling. Elastic compression bandage. Can be left for 30 mins and then removed for 15 mins

Elevation: Elevate above heart to help decrease the swelling

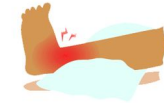
24-48hrs after, warm can be applied to help reduce swelling and provide comfort

- For 20 mins and allow cool down between applications

Tylenol, Advil, Ibuprofen can help relieve discomfort

First Aid for Sprains, Strains & Twists Follow R.I.C.E Treatment

REST



Rest
The injured
area for 48 hours

ICE



Ice
For 20 minutes at a
time, 4 to 8 times
per day

COMPRESSION



Compress
To help reduce
swelling

ELEVATION



Elevate
The injured limb
6 to 10 inches above
the heart level

image credit: verywell.com

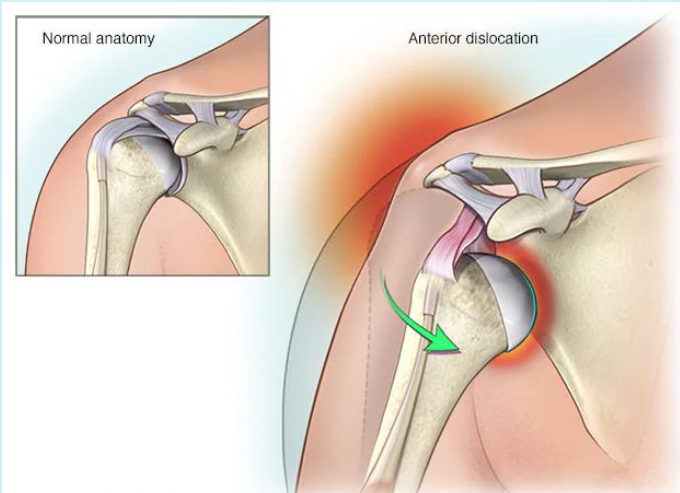
VMEDO Download VMEDO App on Playstore | www.vmedo.com

What to do



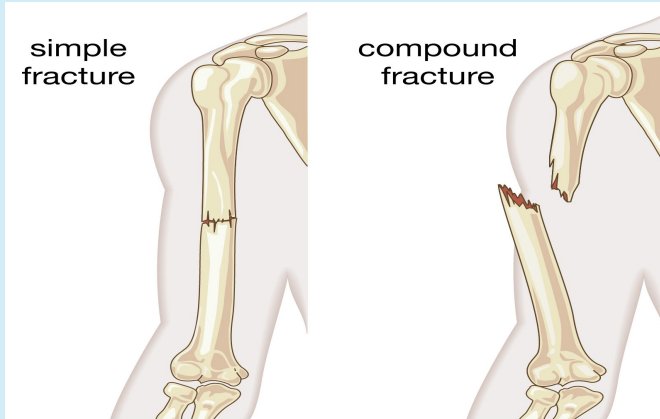
Dislocation

- When bones are partially or completely pulled out of their sockets
- Fingers, elbow, and shoulders most frequently dislocated
- Pain, tenderness, swelling, bruising, unable to move joint, obvious deformity



Fractures

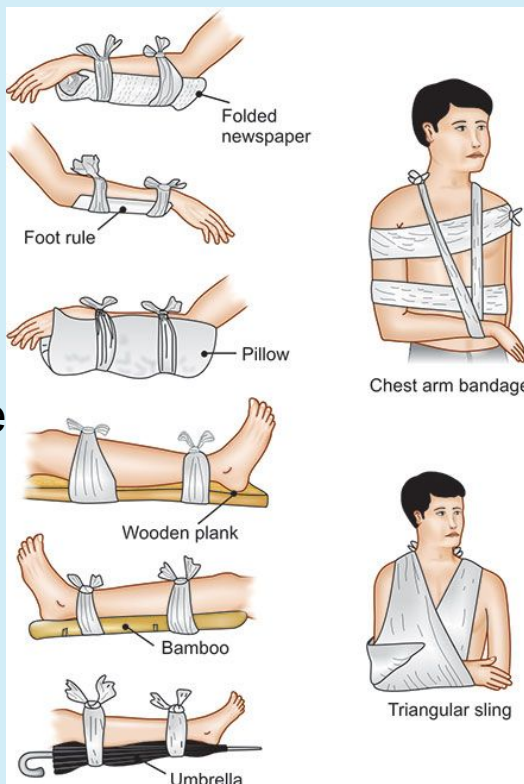
- Break in the structure of the bone
- Could be open (bone sticking out through the skin) or closed
- Pain, swelling, tenderness, bruising, bleeding, obvious deformity, with hip fractures it is common that the affected limb will be rotated outwards, and shorter than the uninjured leg
- Hip fractures are VERY common injuries of the elderly, and require immediate admission to hospital





What to do

- Ask for help
- Remain as still as possible
- Immobilize the area
- Control any bleeding and cover any wounds
- Do not attempt to put it back into place (it could cause more injury)
- If dislocation, Rest, ICE, compression/Immobilize, Elevate
- Call 911 or visit the Emergency Room





<https://youtu.be/HMTUDTsCdxg>

Case Study Sprain, Strain & Fractures

Gabrielle loves to play basketball with her classmates. During a game, she makes a sudden turn and loses her footing and stumbles to the ground. She starts to scream in pain. As a caring friend, you approach her to help and you see her holding her ankle in pain. Luckily you attended a workshop that talks about these injuries. You suspect she might have a sprain or strain and you also remember the acronym RICE which could help with this injury. What does it stand for?



- a) Run ice compression ease
- b) Rest, ice, compression, elevation
- c) Rest, imitate, call and elevation

Break time



03

Accidental Ingestion of Dangerous Products (AIDP)



Accidental Ingestion of Dangerous Products (AIDP)

Dangerous products can be found everywhere!!!

- Ingested
- Inhaled
- Absorbed through the skin

It is important to know who to contact!



AIDP in Different Situations

If swallowed:

- ✓ Do not induce vomiting
- ✓ Do not try to “neutralize” the product (milk is not an antidote)
- ✓ You can rinse and clean your mouth
- ✓ Call Poison Control Centre (PCC)



(GdQ, 2022)

If in your eyes:

- ✓ Use a small amount of LUKEWARM water to rinse before opening eyes
- ✓ Use LUKEWARM water and rinse your eyes for 15 minutes (hold eyelids open the entire time)
- ✓ Call PCC



If on your skin:

- ✓ Remove clothing in surrounding area
- ✓ Wash the affected area for 15 minutes with LUKEWARM water
- ✓ Call PCC
- ✓ Do not add any products (ie. moisturizer) to the skin



Poison Control Centre PCC or Centre antipoison du Québec



When to call Poison Control Centre

- Cases of **acute poisoning, actual or suspected**
- Exposure to **toxic domestic or industrial products, pesticides, poisonous mushrooms, drugs or venomous animals**
- **Ingestion or inhalation of a chemical;**
- Exposure of the **skin or eyes** to a chemical product
- Improper use of a **medication**
- Work accidents involving acute exposure to a toxic product
- Requests for **information** on a toxic product;

What information to give when calling the Poison Center?

- ❖ The way of poisoning (swallowed, in the eyes, on the skin, breathing)
- ❖ If possible, have the bottle or the poison container close by and safely closed
- ❖ What quantity?
- ❖ When did happen?
- ❖ Person's weight and age
- ❖ The first aid actions you gave

In Brief

1. Call immediately the Poison Control Centre
2. DO NOT WAIT
3. CALL 911 if unconscious, not breathing, no pulse and start cardiopulmonary resuscitation (CPR) as soon as possible (ASAP)





IF it is a non-toxic cause (infection,
electrocution, bites, etc)

call INFO SANTÉ at 811

If life is in danger,
call 911 as soon as possible
(ASAP)



Case study #1

An 8-year-old child saw a small bottle in the bathroom with blue liquid that he thinks is the juice that parents make at home with blue liquid water enhancer. Usually when the parents prepare the blue juice, the child loves the sweet taste of blueberry. However, this time the child takes a good sip but the taste was unusual. He quickly goes to see his mother showing the small bottle to her. In shock, the mother takes back the bottle very quickly because she knows that in this bottle was the leftover laundry soap. What should the mother do in this situation?

- Call friends or family to ask for advice
- Give milk to the child and rinse the mouth
- Call Poison Control Center
- Induce vomiting to the child



04

Asthma



Asthma

Different types of triggers:

Inflammatory allergic triggers:

- Dust
- Moulds
- Pollen
- Pet allergen

Symptom non-allergic triggers:

- Smoke, pollution
- Exercise
- Cold air, weather changes
- Viral infection



(Asthma Canada, 2022)

Asthma Attack

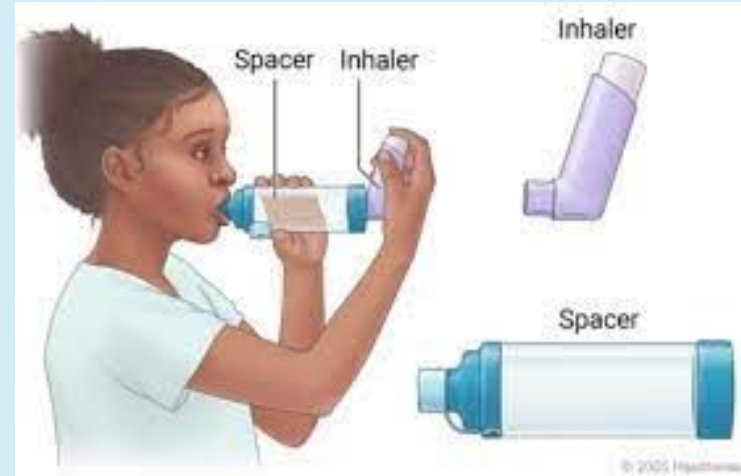
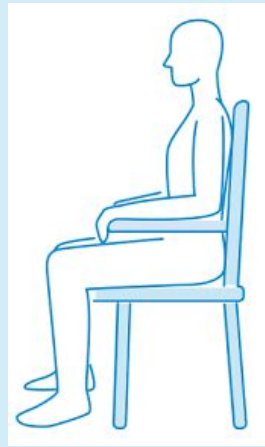
Signs and Symptoms

- Difficulty breathing
 - Short of breath
 - Coughing
- **Wheezing**
- Fast shallow breathing
- Upright position
 - Trying to catch their breath
- Pale or blue skin
- Fast pulse
- Restlessness at first
 - then fatigue



How to use an asthma inhaler?

1. Sit the person upright
 - i. Remain calm and reassure
 - ii. Do NOT leave the person ALONE
2. Give puffs according to prescription
 - i. Use a spacer if there is one
 - ii. Shake puffer
 - iii. Put 1 puff into spacer
 - iv. Inhale, hold breath for 10 sec
 - v. Wait 1-2 minutes before 2nd puff



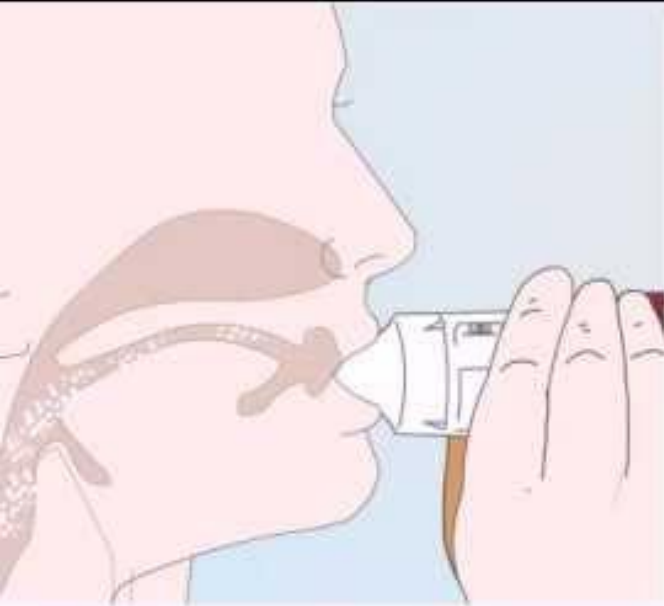
REMEMBER: ALWAYS follow prescription

Diskus Dry Powder Inhaler



Diskus

Turbohaler Inhalation Powder



7. Inhale forcefully and deeply



Turbohaler

CASE STUDY #1

Sonia, a 15 year old girl was diagnosed with asthma from a very young age, she was given a prescription inhaler which she takes it regularly or as needed. She knows well when to take it and how to take it.

However, lately she says she coughs more often, and during Zumba classes she has to take more pauses more often to catch her breath and she feels fatigued. Lately, she takes care of her mother's cat and her friends started smoking, but she only tried smoking a few times.

What should she change in her routine to reduce the risk of an asthma attack?

- Taking more Zumba classes to increase the pulmonary capacity to effort
- Take the inhaler more often, even if the prescription is only 2 x by day
- Call 911 when she has difficulty breathing
- Try to decrease the trigger factors (cat and smoking) and continue to take the inhaler as prescribed

Break time

Time to Zumba



05

Bleeding



Nose Bleeds

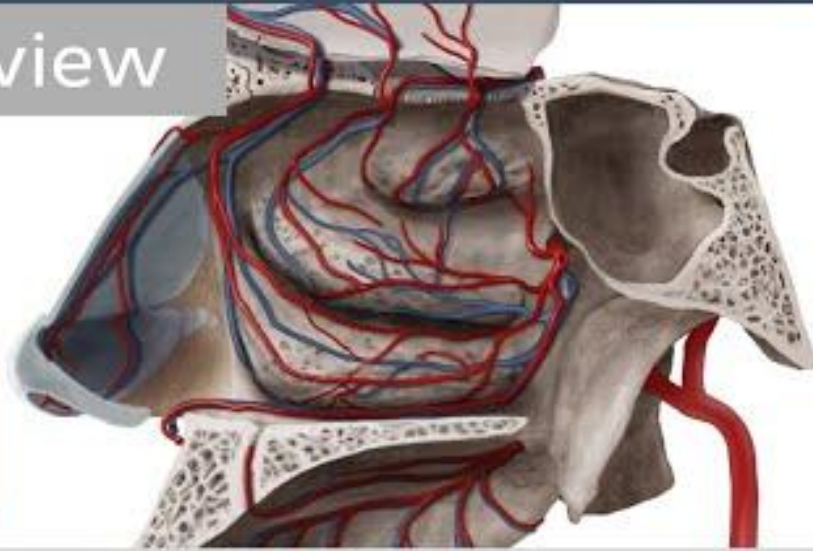


1. Pinch soft part of the nose
2. Lean forward
3. Pinch for 10 -15 min
4. If the bleeding continues after 10 to 15 minutes, repeat holding pressure for another 10 to 15 minutes
5. If the bleeding still continues, seek emergency care
6. Very common with young kids
7. During winter months when humidity Levels are low

Anatomy

Blood vessels of nasal cavity

Preview





How to treat nose bleeds



<https://youtu.be/PmmhxW0vVXA>

External bleeding

Losing blood is not always a medical emergency. There are minor cuts and nosebleeds we can easily deal with at home.

Arterial blood is bright red, and pulsatile, can shoot across the room and is an emergency.

Apply very firm pressure and call 911

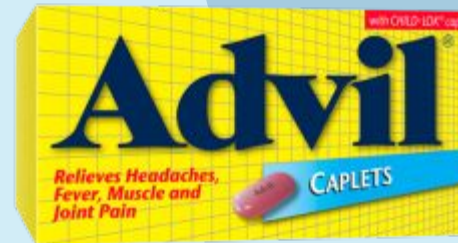
Venous blood is darker, and 'slower' but still needs to be stopped



Causes of major blood loss



- Hemorrhage= amount of loss about your hand's width
 - Severe blood loss= characterized by losing about 500ml of blood
- Causes cuts, deep wounds (puncture)
- Medications that people take for reasons like chronic pain such as NSAIDS like Aspirin, advil, Aleve, Celebrex when not taken as directed can cause stomach ulcers to develop which can lead to bleeding.

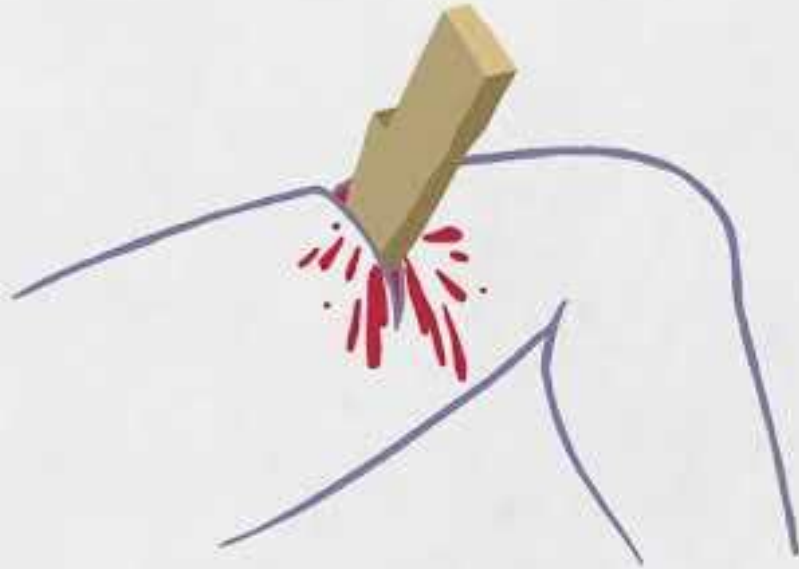


Severe blood loss

Signs and symptoms of shock:

- Pale, cold and clammy skin
- Rapid pulse, gradually becoming weaker
- Faintness, dizziness, thirst and nausea
- Restlessness and apprehension (fear, anxiety)
- Shallow breathing, yawning, sighing and gasping for air

Interventions



Case study

12-year-old Patrick is playing soccer in the park with his friends after school. A few minutes into the game while goaltending the ball hits Patrick in the face. His nose starts to bleed profusely, you are walking your dog through the park and notice, what can you do to help? Choose two.

- A) Assist Patrick to sit down, have him lean a bit forward while pinching his nose for 15 minutes
- B) Assist Patrick to blow his nose
- C) Assist Patrick to sit down, lean his head backwards while pinching his nose for 30 minutes
- D) If more than 30 minutes have passed and his nose is still bleeding encourage Patrick to go to the emergency room

Dehydration caused by diarrhea and vomiting



Causes

- Multiple things can cause diarrhea and vomiting
- **Viruses**
 - Also known as “gastro”
 - Examples: Norwalk and Rotavirus
- **Bacterias**
 - Eating contaminated or improperly cooked food
 - Also known as “stomach bug” or “24 hour bug”
 - Examples: E Coli and Salmonella.
- **Medications**
 - Antibiotics can cause severe diarrhea
 - Example: Clostridium difficile (C-Diff)
 - Pain medications can cause nausea and vomiting
 - Example: Morphine



MAYO CLINIC

Signs and Symptoms

- Thirst
- Headache
- Dizziness
- Fatigue/low energy
- Dry mouth
- Fever
- Dark urine/not urinating much
- Muscle aches/cramps
- Mental Confusion (emergency)
- Difficulty to wake up *

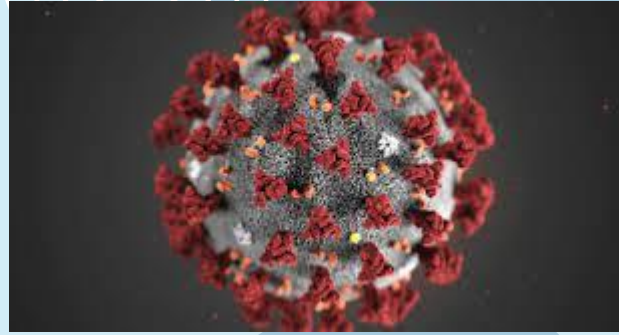


Scenario

Jessica is a 7-month old baby who over the past two and a half days has been experiencing episodes of diarrhea and vomiting. She is becoming increasingly fussy, crying a lot, and since late last night won't take her bottle. The next day things appear to have gotten worse, she still will not take her bottle, her mom realized she hasn't had a wet diaper since yesterday afternoon, is still crying but no tears coming out of her eyes. As the day progresses baby Jessica becomes much more quiet and seems "sleepy" her mother is very concerned. Which of the following suggest that baby should be brought to see a doctor right away? Choose all that apply

- a) She will not take her bottle since last night
- b) Baby Jessica has become very sleepy
- c) No tears when she cries
- d) She has not urinated in her diaper since yesterday

07



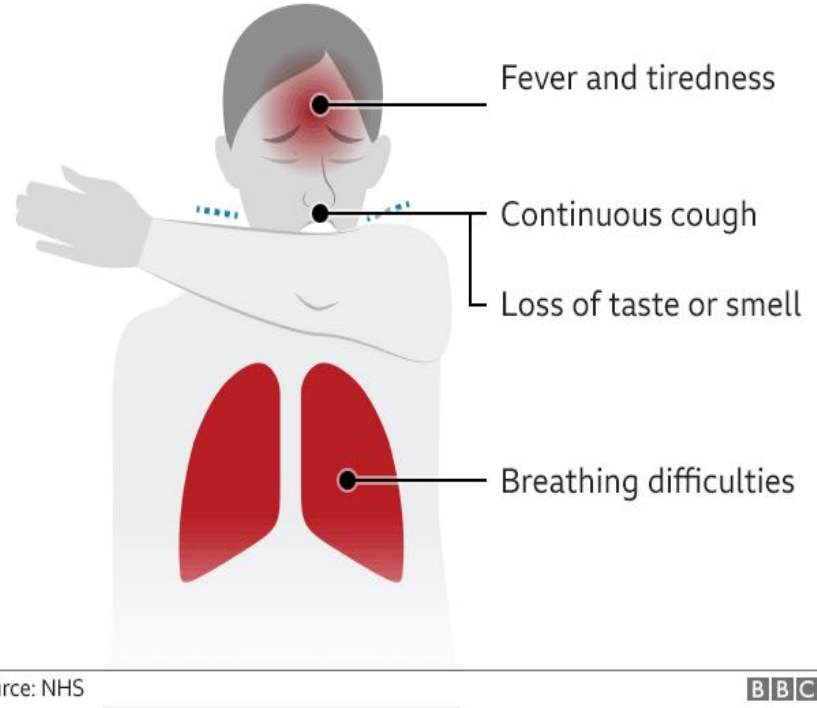
Covid 19 - Care at home

Recognizing Signs and Symptoms and Treating them at home.

Covid-19: Symptoms

- Extreme fatigue
- Muscle aches
- Sore throat
- Symptoms of a cold
- Runny nose, sneezing
- Headache
- Loss of taste and smell

Coronavirus: Key symptoms



Source: NHS

BBC

Rapid-Antigen Test

- Rapid antigen tests are available from most pharmacies. Call ahead to reserve for your family just in case.
- It is important to remember that these tests are not 100% reliable, PCR tests remain the gold standard for now
- Best to use WHEN symptoms are present



Covid 19 Care at Home: Let's Stop the Spread

- Frequent hand washing with soap and water or sanitizer
- Do not share personal items
- Wipe down and disinfect high touch surfaces such as light switches, door handles, remote controls etc with products such as lysol wipes, or homemade 10% bleach solution
- If possible, practice social distancing wear a mask if you have to circulate in your house cover your coughs and sneezes
- If possible: quarantine yourself to a specific room away from people and pets and have a designated bathroom

▲ How to manage mild symptoms of Covid-19 at home?

How to manage mild symptoms?

- Continue to monitor your symptoms
- **Fever:** Ibuprofen, Naproxen or Tylenol .These medications do not treat the virus, but the symptoms.
 - Contradicted: some sources say to allow the fever to run its course and not to take any medications UNLESS, you or your child has a history of febrile seizures.
 - Contact your physician or 811 if you have any concerns
- **Body Aches:** Tylenol, Aleve, Advil/Motrin, as well as something like cold/warm compresses
- **Cough or sore throat :** teas, hot water with lemon, lozenges and cough syrup
- Get plenty of rest and stay well hydrated

◀ When to seek medical attention?

Do not wait, Call 911 immediately if you or a family member are experiencing any of the following symptoms

- Trouble breathing especially at rest
- Persistent pain or pressure in the chest
- Inability to wake up or stay awake
- Confusion
- Pale, gray, or blue-colored skin, lips, or nail beds, depending on skin tone



Case study

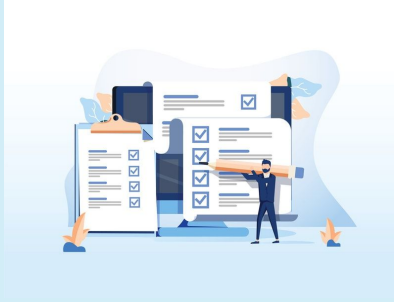
Frank, a 47 year old man with high blood pressure and asthma tested positive for COVID-19 4 days ago. He realized he had COVID when he suddenly lost his sense of smell even though his nose was clear. The first few days his only symptoms were mild aches and pains, a mild cough and feeling very tired. Last night though, he started having coughing “fits” and trouble catching his breath, unable to take deep breaths. His wife gave him a cough suppressant and gave him 3 pillows to sleep with. The next morning Frank’s wife wakes up and finds that he looks very pale, almost grey, his breathing seems a bit fast and “funny” he woke up but doesn't seem to have the energy to get out of bed he’s also mumbling something but he's not making any sense. Frank’s wife is starting to get concerned what should she do?

- a) Let Frank get some extra sleep; he looks like he needs the rest
- b) Make him some chicken soup and give him some Tylenol
- c) Call Info-Sante (811), get a nurses opinion, and open the window so he gets some fresh air.
- d) Call Urgences Sante (911)

Questions?

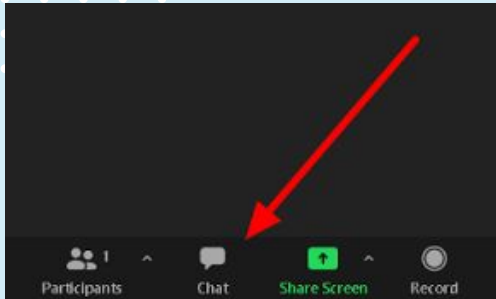


Questionnaire



**Please take a few minutes to answer
this questionnaire**

<https://forms.gle/6dtRcZBo5AmAfzZs9>



Link available in the chat!

A close-up photograph of a pair of hands, palms up, holding a small, rectangular piece of white paper with deckled edges. The paper is centered between the fingers and has the words "THANK YOU" printed on it in a bold, black, sans-serif font. The background is dark and out of focus.

THANK YOU

References

Asthma Canada, *Education*. Retrieved 20 of MArch from <https://asthma.ca/what-we-do/education/>

Blood vessels of nasal cavity. (2021, February 3rd) *Human Anatomy kenhub* retrieved March

17th <https://www.youtube.com/watch?v=iLZLZMeuyKQ>

Government du Québec (2022). *Centre antipoisson du Québec- Premiers soins*. Retrieved 23 of March from

<https://www.ciussc-capitalenationale.gouv.qc.ca/antipoison/premiers-soins>

Epilepsy Action. (2016, September 9). *Jack's story: Tonic-clonic seizures*. YouTube. Retrieved March 21, 2022, from <https://youtu.be/tA-Bikjbka4>

Epilepsy Action. (2016, September 9). *Ali's story: Absence seizures*. YouTube. Retrieved from <https://youtu.be/AgfAJigGgtI>

Canadian Red Cross. (2017, November 15). *What to do when your child has a seizure*. YouTube. Retrieved March 21, 2022, from

<https://youtu.be/LKm5l1yoLe8>

Canadian Red Cross (2020). *Childcare first aid manual*. Hawktree Solutions. Print.

Everyday Nursing Tips. (2015, February 4). *Applying a figure 8 elastic bandage to an injured wrist*. YouTube. Retrieved March 21, 2022, from

<https://youtu.be/iZOwys-DyAQ>

Fleming Medical. (2012, August 16). *Practical first aid #18 - sprains and strains*. YouTube. Retrieved March 21, 2022, from

<https://youtu.be/BZMD3cfyjVI>

Home Workout-Zumba. (2020, April 21). YouTube. Retrieved March 21, 2022, from

https://www.youtube.com/watch?v=fz0AossTXaM&ab_channel=el_vee

Lifesaving Society. (2015). *Canadian first aid manual*. (16th Printing). Royal Lifesaving Society Canada. Print.

Lewis, S., Dirksen, S., Heitkemper, M., Bucher, L., Camera, I., Barry, M., Goldsworthy, S., & Goodridge, D. (2014). *Medical Surgical Nursing in*

Canada (3rd ed.). Elsevier

References

How to treat Nose Bleeds (2015, January 8th). *St-Johns Ambulance* Youtube
: <https://www.youtube.com/watch?v=PmmhxW0vVXA>

How To Deal With Severe Bleeding (2019, November 3rd). Youtube
<https://www.youtube.com/watch?v=5GVYiD0WzaE>

Mayo Clinic Minute: *What is 'Stomach flu?'* (2017, November 6th). Youtube. Retrieved March 28th
<https://www.youtube.com/watch?v=gMkVsjTFoTQ>