

Ask Nurse Jill

PRESENTED BY:

JILL FLECK, BSN-RN, MSRN, ONC

About Nurse Jill

- ▶ RN 5 years at Level 1 Trauma hospitals
- ▶ Work history:
 - ▶ Pediatric Hematology/Oncology
 - ▶ Medical/Surgical – Orthopaedic, Trauma, Gastrointestinal, Urology
 - ▶ Intensive Care Unit – Trauma, Surgical
- ▶ Certified:
 - ▶ Medical-Surgical
 - ▶ Orthopaedic
- ▶ Skills instructor:
 - ▶ Stop The Bleed

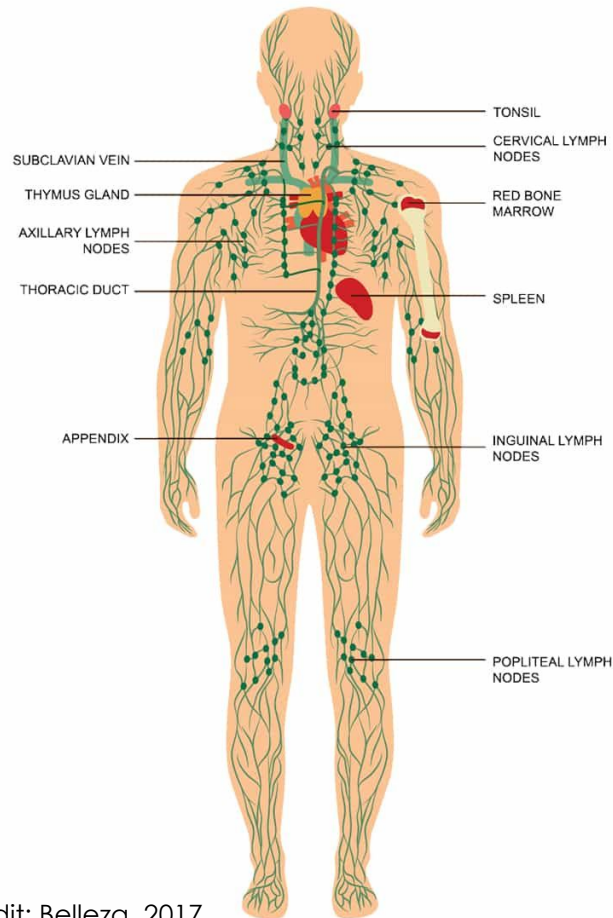
Today's Discussion

- ▶ Lymphatic System (Jill)
- ▶ Contagious (Julie)
- ▶ Blood (Mary)
 - ▶ Blood Types (Julie)
- ▶ First Aid Tips (Julie)
- ▶ Fascia (Mary)
- ▶ Melatonin (Gene)



Image credit: Essay Dragon, accessed 2020

Re-Cap: What is the Lymphatic System?



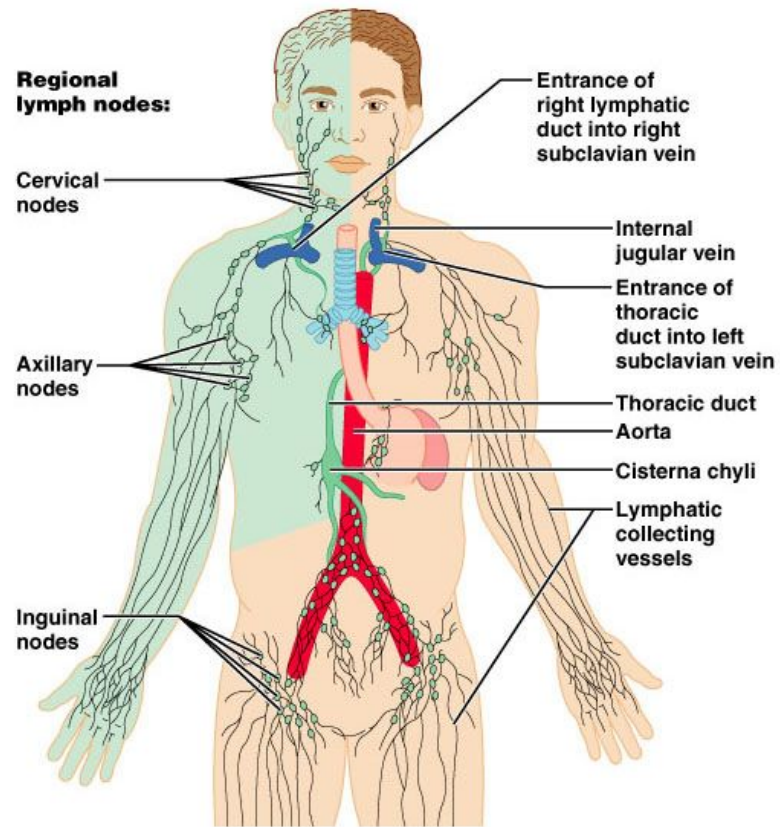
Functions:

- ▶ Drainage
 - ▶ Removes excess fluid from tissues and puts it back into circulation
- ▶ Immunity
 - ▶ Makes white blood cells
- ▶ Absorption
 - ▶ Fats from intestines
- ▶ Transportation
 - ▶ Highway system for white blood cells, hormones, nutrients, germs, cancer cells, etc



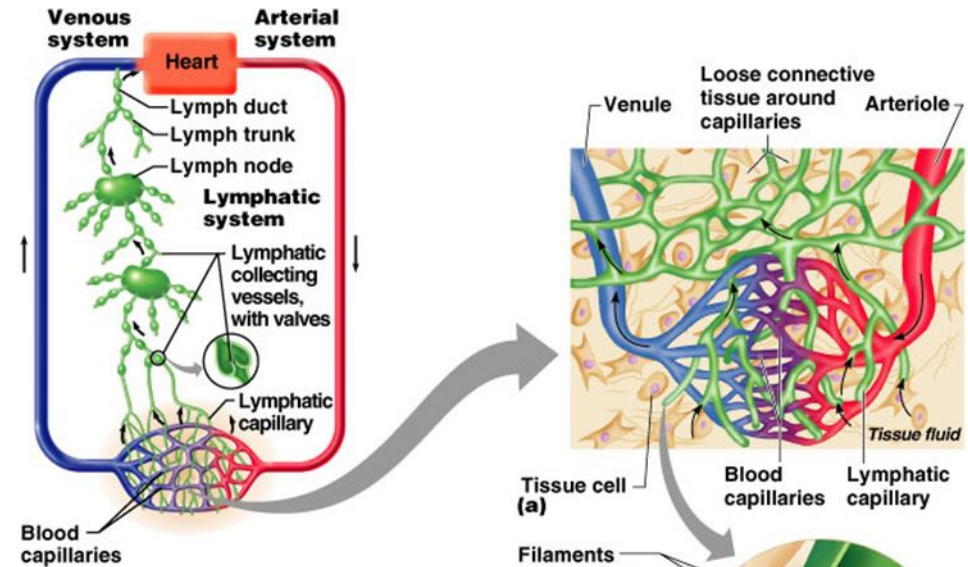
Image credit: Melpomen

Lymphatic System Con't



(a)

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(a)

Filaments anchored to connective tissue

Endothelial cell

Flaplike minivalve

Fibroblast in loose connective tissue

(b)

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When I have a cold or flu, when am I most contagious? And for how long?

Short answer:

BEFORE YOU ACCEPT THE FACT YOU ARE SICK!

- ▶ Flu:
 - ▶ 1 day prior and 3-5 days after symptoms start
- ▶ Cold:
 - ▶ 2 to 4 days after symptoms start
- ▶ If you feel any sense of illness –
 - ▶ Keep your distance,
 - ▶ Cover your mouth
 - ▶ Wash your hands

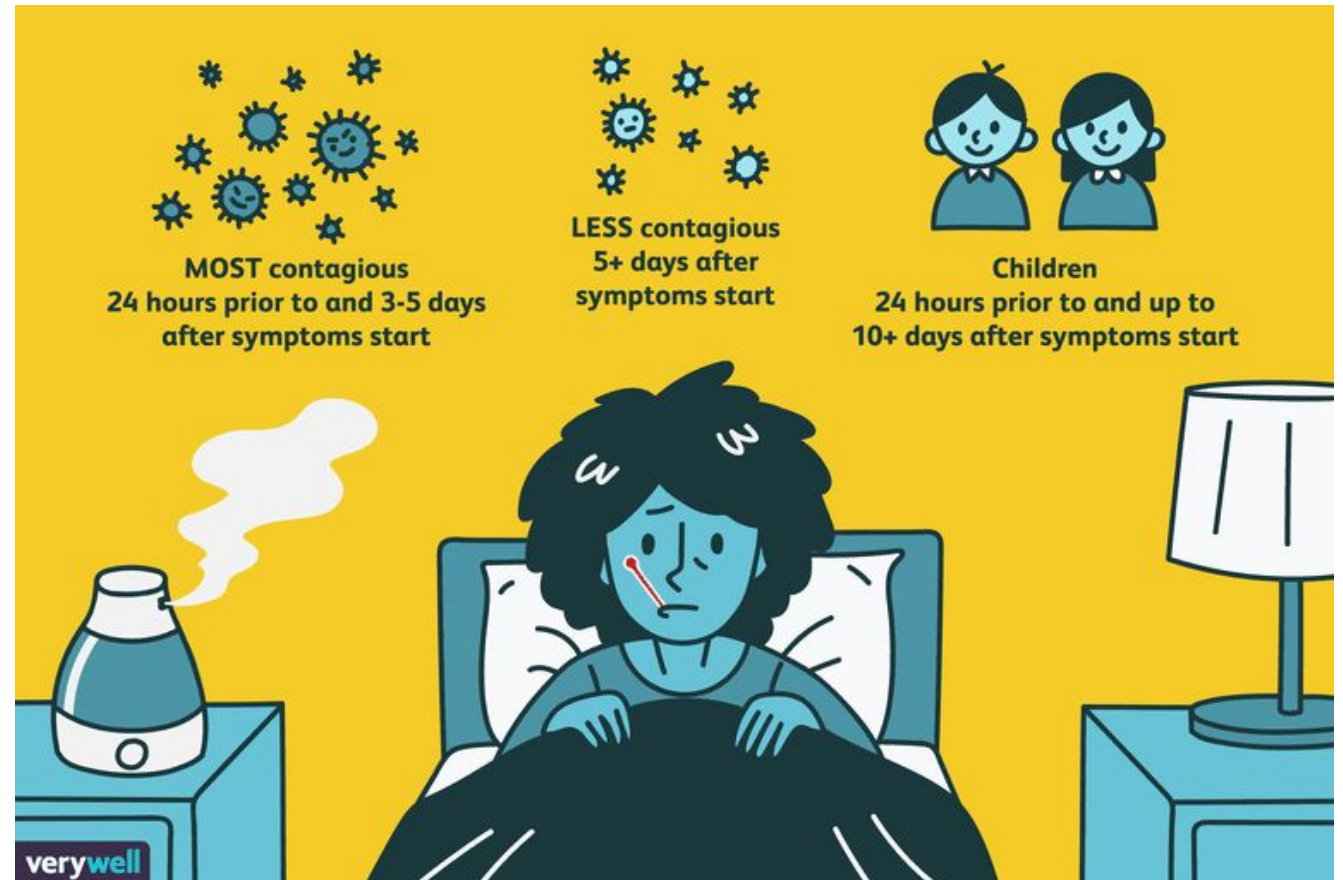
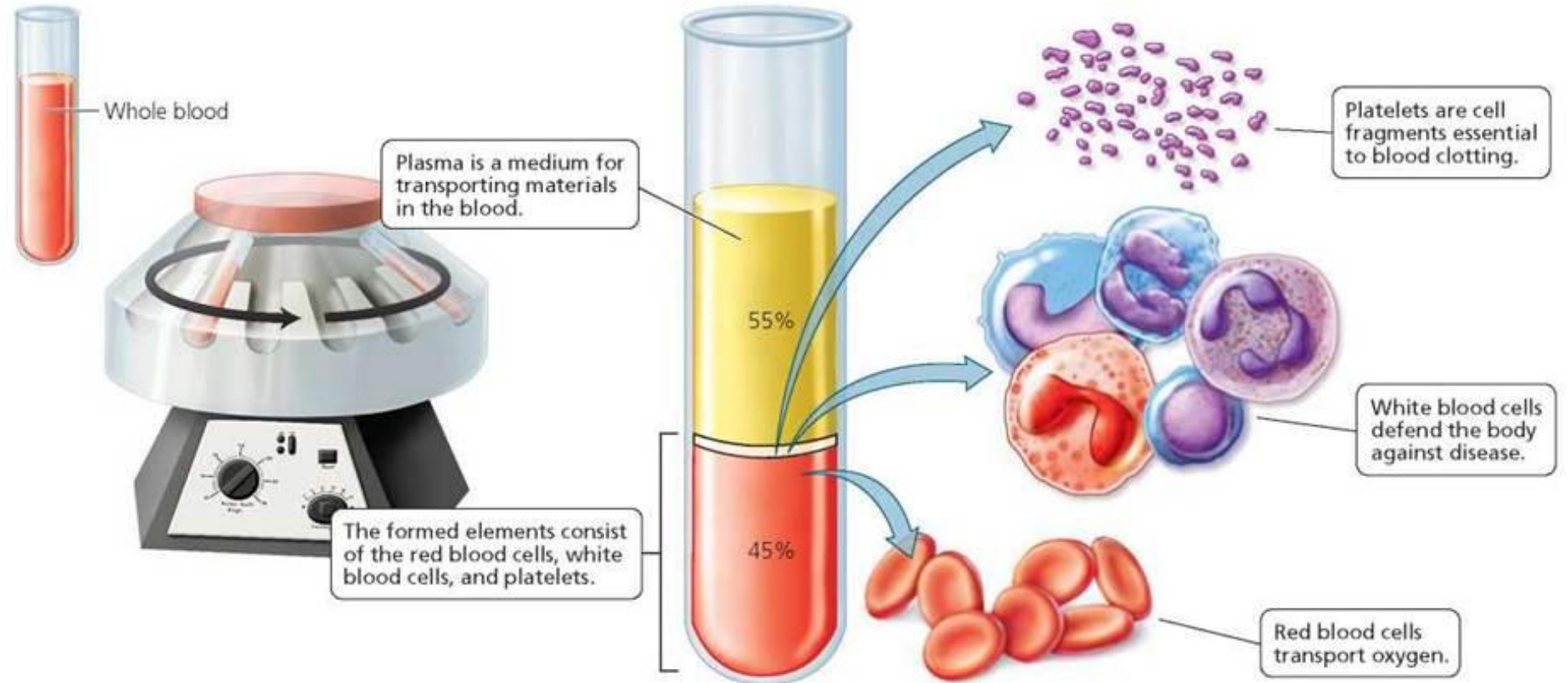


Image credit: Duda, 2020

What's the deal with blood: What is it made up of, mostly water?

50% Water



What's the deal with blood: T-cells, white cells, what do they do?

- ▶ Red Blood Cells = Transport oxygen
- ▶ White Blood Cells = Protect us from disease
 - ▶ T-Cells, B-Cells, neutrophils, eosinophils, basophils, macrophages, etc
- ▶ Platelets = Keep us from bleeding to death
- ▶ Plasma = Transport nutrients to cells and take away wastes

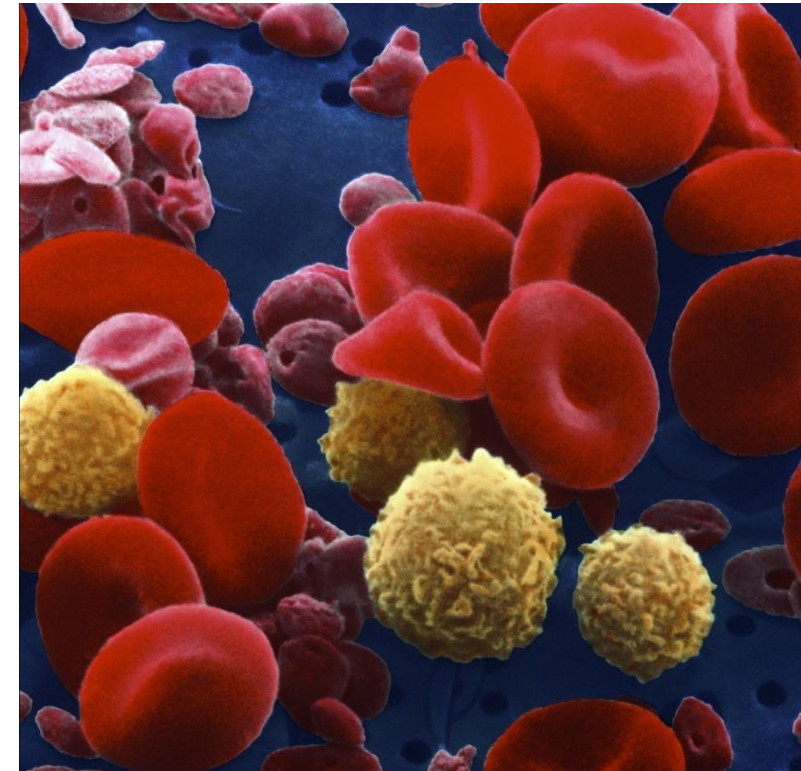


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Blood Types – How are they determined?

Terms:

- ▶ Antigen
 - ▶ Substance that invokes an immune response
- ▶ Antibodies
 - ▶ Protein made by specialized lymphocytes (white blood cells); found in plasma

- ▶ Whether you have an A or B antigen on the surface of red blood cells
- ▶ If you have the Rh factor protein (+/-)

	Group A	Group B	Group AB	Group O
Red blood cell type				
Antibodies in plasma			None	
Antigens in red blood cell				None

Image credit: Wikipedia

Blood types – How do I get my blood type?

PARENT 1		AB	AB	AB	AB	B	A	A	O	O	O
PARENT 2		AB	B	A	O	B	B	A	B	A	O
Possible Blood Type of Child	O					🩸	🩸	🩸	🩸	🩸	🩸
	A	🩸	🩸	🩸	🩸		🩸	🩸		🩸	
	B	🩸	🩸	🩸	🩸	🩸	🩸		🩸		
	AB	🩸	🩸	🩸			🩸				

Image Credit: American Red Cross

Blood types – Why can some not mix with others?

- ▶ Blood types other than your own (or O-) will be seen as an invader
 - ▶ Because of the different antigen type on the red blood cell
- ▶ White blood cells will attack the red blood cells

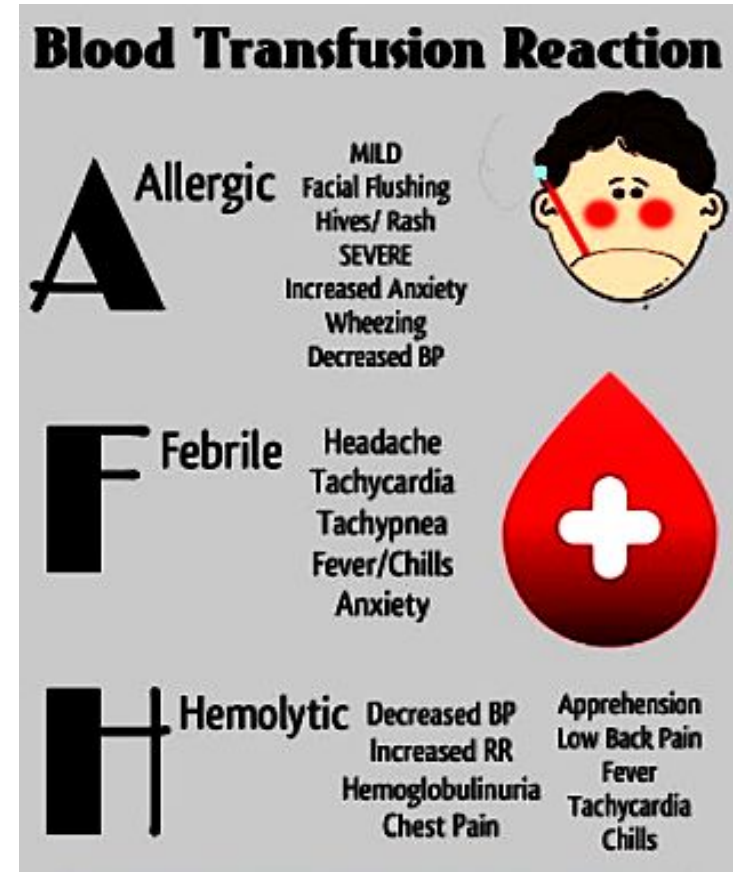


Image credit: Transfusion medicine

Fascia, is it a real thing?

YES, it is.

- ▶ “Saran Wrap” holding your entire body in place
- ▶ Made up of layers of collagen fibers
- ▶ Stretching helps keep it flexible
 - ▶ Tightness and injury occurs from stress, dehydration, limited mobility, overuse

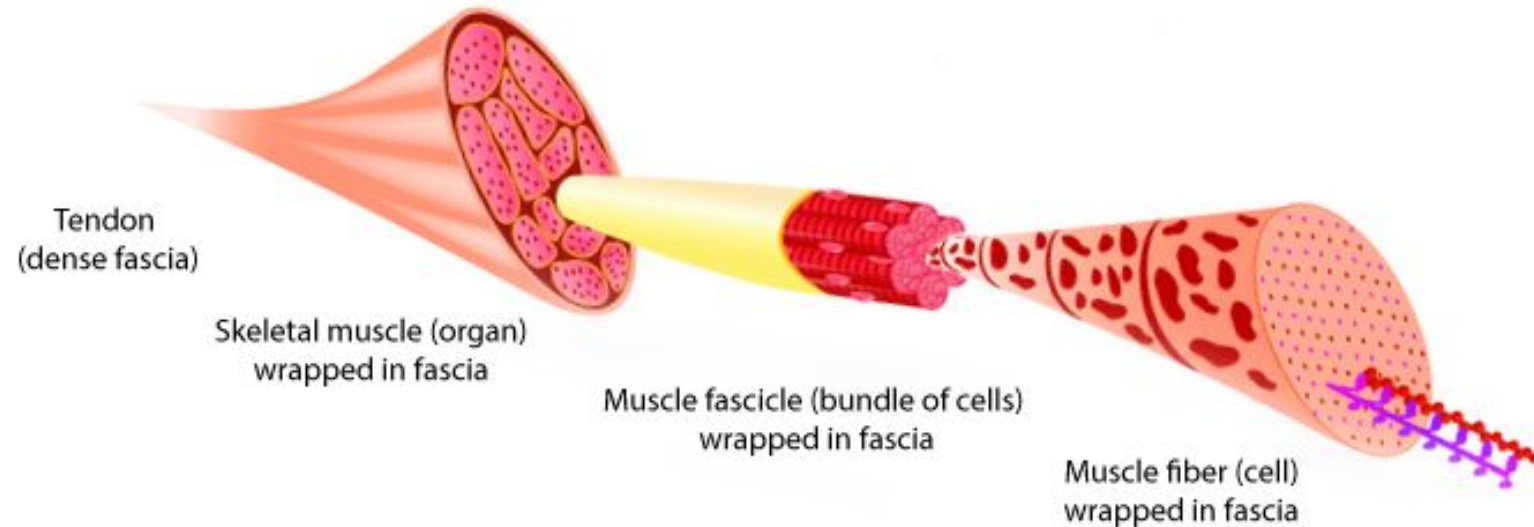


Image Credit: Kabel, 2014

What are some basic first aid techniques one should know for adventuring?

- ▶ **PREVENTION AND PREPARATION**
 - ▶ Educate yourself & have proper supplies
- ▶ Your first aid kit
 - ▶ Do you know how to use the supplies?
- ▶ Stings and allergic reactions
 - ▶ Benadryl, ice
- ▶ Sprains and breaks
 - ▶ Stabilize and elevate
- ▶ Stop The Bleed
 - ▶ Wound packing
 - ▶ Tourniquet

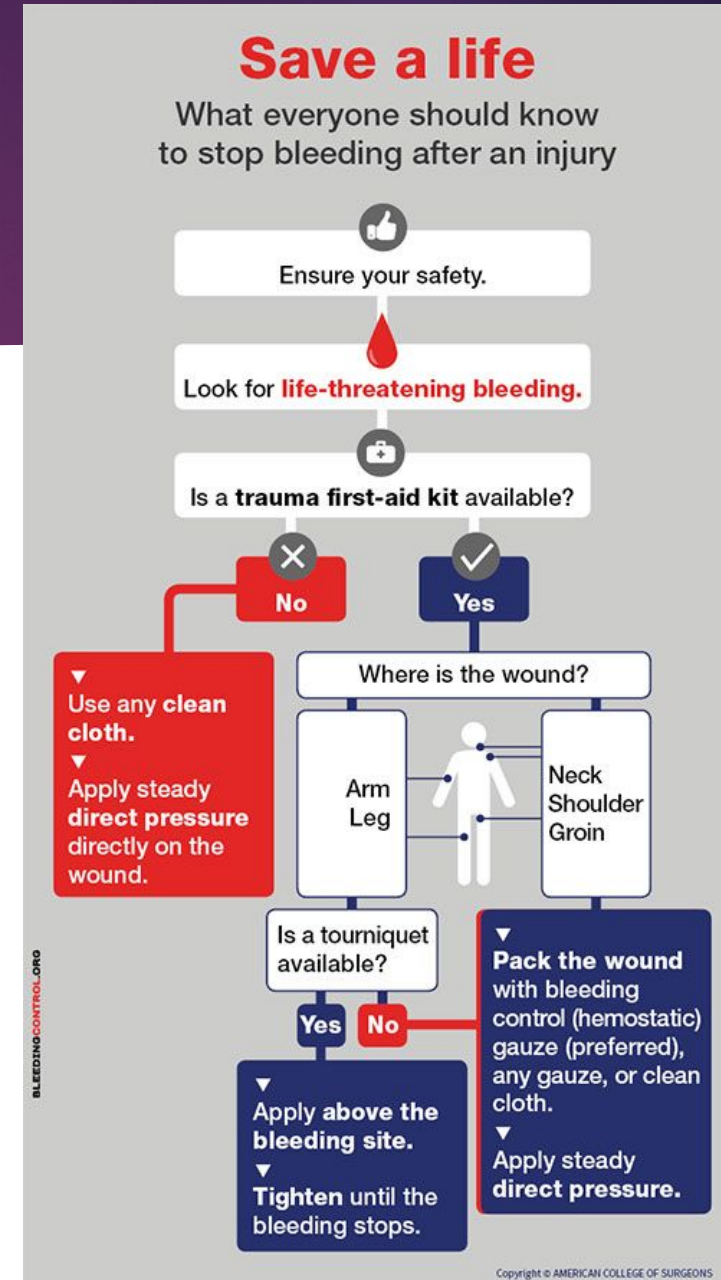


First Aid Golden Rules

- Calm and Composed
- Your Own Safety First
- Emergency Response System
- Comfort of the Injured Person
- Stopping Any Bleeding
- Immobilizing a Person with Neck, Head or Back Pain
- Keeping a First Aid Kit

Stop The Bleed

- ▶ BLEEDING DANGER –
 - ▶ Spurting,
 - ▶ Soaking bandages/clothes,
 - ▶ Pooling underneath
 - ▶ Total/partial loss of limb
 - ▶ Bleeding person is now confused



Melatonin:

I take melatonin to help me sleep. How does it do that?
Is it a mineral, herb, placebo?

- ▶ Melatonin is a natural hormone released from the Pineal gland
- ▶ Signals sleep to your body when daylight changes to night
- ▶ Taking melatonin increases amount in your body, which increases your drowsiness

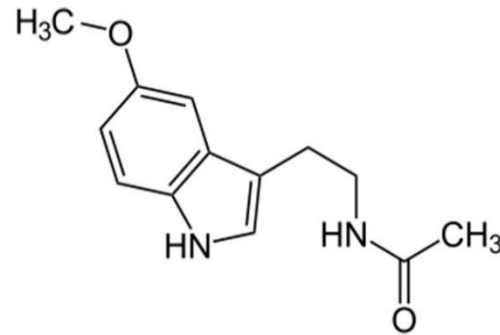


Image credit: Rem-fit

The Pineal Gland

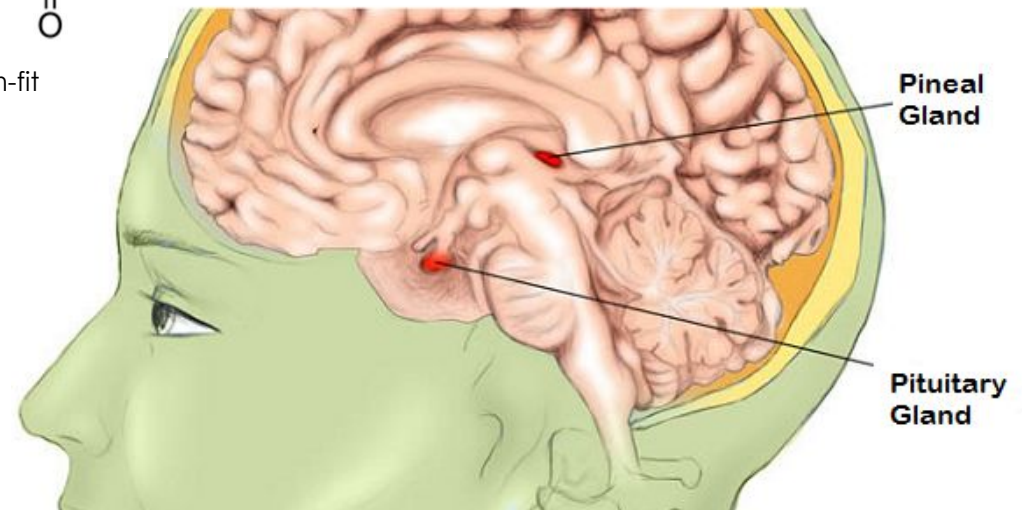
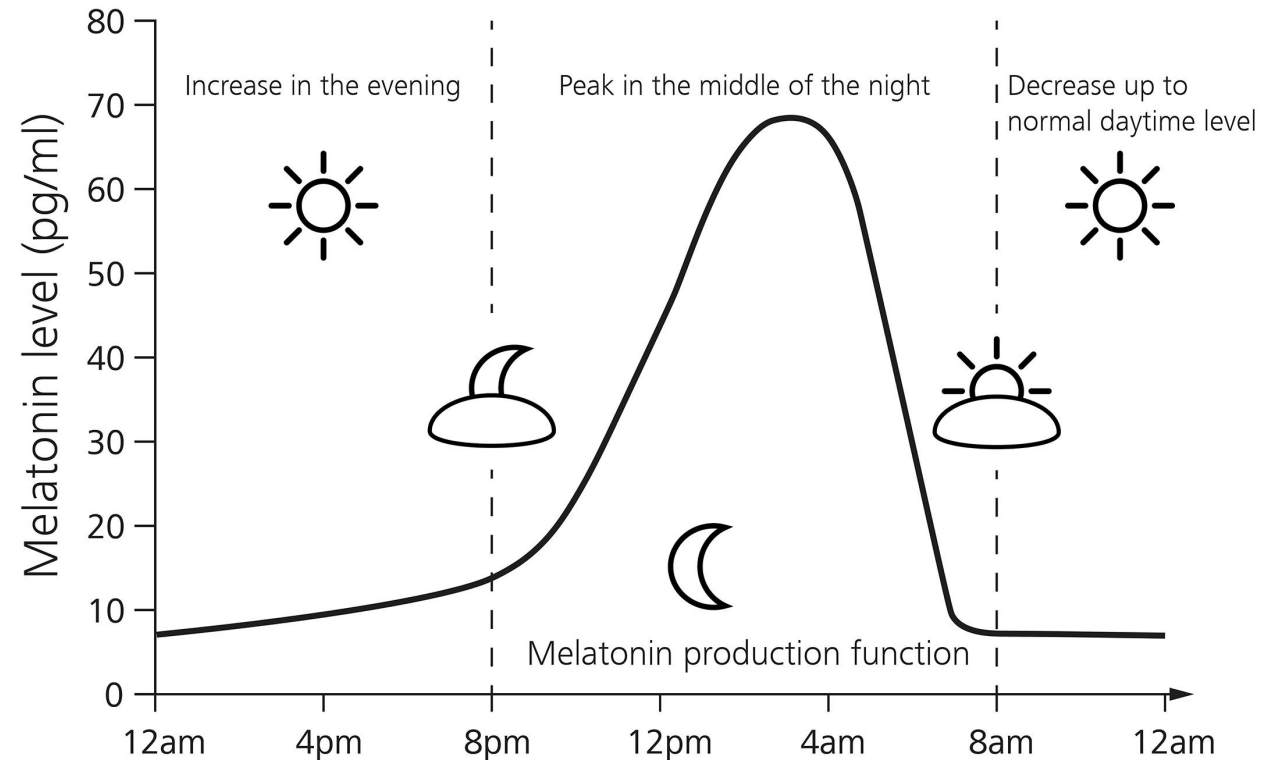


Image credit: MediFree Healthcare, accessed 2020

Melatonin:

- ▶ Blue light suppresses melatonin from releasing – You can increase your melatonin production by reducing blue light before bed
- ▶ ****Caution****
 - ▶ There is not enough research on long-term effects of melatonin supplements



The End

