

Lions and Tigers and Bears-Oh My!

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Heart of Wellness

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Overview

- ↘ Signs and Symptoms of ear infections, upper respiratory infections and Flu
- ↘ When to go to the doctor
- ↘ When it's an emergency
- ↘ All you wanted to know about fevers



Overview

- ↘ Natural and conventional ways of treating fevers
- ↘ Fevers in Newborns
- ↘ Prevention and Treatment – LOTS!



Signs/Symptoms of Illness/Infection





Ear Infection (aka Otitis Media)

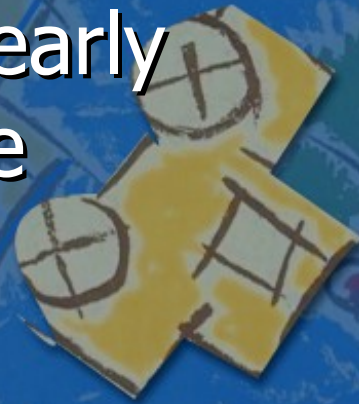
- ↘ Bacterial infection of the middle ear
- ↘ Very common in childhood
- ↘ Caused by various different bacteria








Ear Infection (aka Otitis Media)

- ↘ Eustachian tube in young kids is nearly horizontal—doesn't drain well—nice environment for bacteria
- ↘ Allergies can lead to swelling and obstruction of tubes





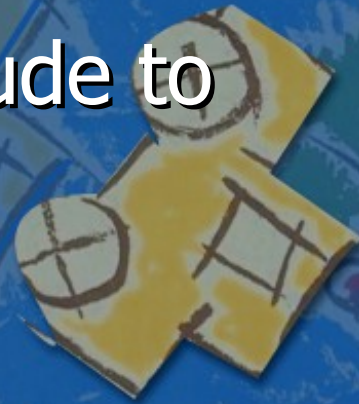
Signs & Symptoms: Ear Infection

- ↘ Depends on age of child
 - ↘ Under 2 years, changes in behavior & appetite; fever is inconsistent
 - ↘ Pulling on ears is unreliable
 - ↘ Toddlers may complain of ear pain, noises in the ears
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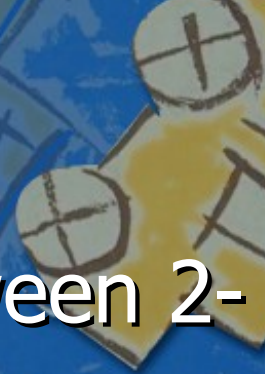

Signs & Symptoms: Ear Infection

- Behavior changes range from lassitude to agitation to indifference
- Ages 4 and up generally capable of reporting ear pain (usually worse at night), fever, signs of hearing loss, personality changes







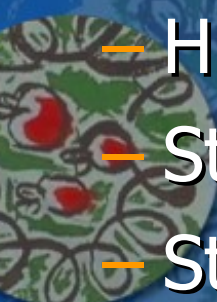
Upper Respiratory Infections (Colds)

- ↘ Usually viral in nature;
 - ↘ Many American children range between 2-9 URI's per year;
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Upper Respiratory Infections

- ↳ Caused by different viruses and bacteria, including:
 - Respiratory Syncytial Virus (RSV)
 - Parainfluenza viruses
 - H. flu (Haemophilus influenzae)
 - Strep
 - Staph
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Signs & Symptoms: Upper Respiratory Infection

- ↘ Congestion (10-14 days)
- ↘ Nasal discharge/runny nose (10-14 days)
- ↘ Cough
- ↘ Sore/scratchy throat
- ↘ Kids may have fever (common)
- ↘ Sneezing
- ↘ Malaise

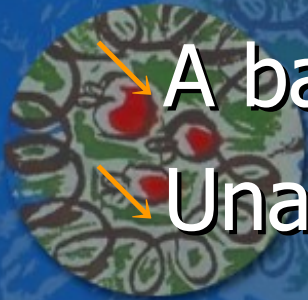
Signs & Symptoms: Influenza

- ↘ Fever for 3-4 days is usual (100F or higher)
- ↘ Headaches
- ↘ Body aches/pains
- ↘ Fatigue/exhaustion
- ↘ Cough is common
- ↘ Sometimes sneezing, stuffy nose, sore throat
- ↘ Sudden onset



Signs Requiring Prompt Visit to the Doctor

- ↘ Fever in infant under 3 months old
- ↘ Symptoms improve and then child gets sicker
- ↘ A barking cough
- ↘ Unable to drink or keep fluids down



Signs Requiring Emergency Care

- ↘ Confusion or can't be woken up
- ↘ Fever in infant under 3 months old
- ↘ Excessive irritability or lethargy
- ↘ Difficulty breathing or chest pain; raspy or wheezing breath sounds; fast breathing
- ↘ Blue lips
- ↘ Skin rash



Fevers



Fevers

- ↘ The body's natural response to an infectious process that should be supported.
- ↘ During fever, liver sequesters iron and zinc needed by microorganisms.



Fevers

- ↘ Temperature of 102F helps body to kill bacteria and mount defenses against microorganisms.
- ↘ Not necessarily a relationship between degree of fever and seriousness of child's condition.
 - More important to assess accompanying symptoms and overall appearance of child

Fevers

- ↘ Temperatures vary during the day and tend to be higher at night.
- ↘ Helpful to take temperature different times of day and at night to get sense of variation.
- ↘ Overdressing can be cause of low-grade fever



Fevers



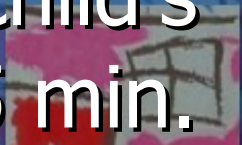
- ↘ Fevers themselves are not dangerous
- ↘ The amount of temperature required to hurt the human brain is 107.6F
- ↘ Fevers due to infection rarely go above 106.2F and while scary to parents, is not harmful.

Fevers

- ✦ Fevers caused by bacteria and viruses do not in and of themselves cause brain damage.
- ✦ Infections of CNS can cause seizures and subsequent brain damage, but infection is cause, not fever.



Fevers

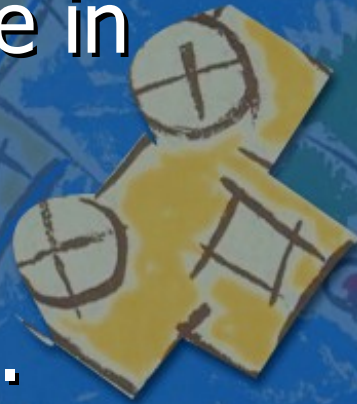
- ✎ Febrile seizures usually due to fever rising quickly rather than height of fever.
 - ✎ Rarely if ever the cause of subsequent seizure disorders.
 - ✎ More common in kids 4 months to 6 years.
 - ✎ While frightening, they do not hurt child's brain and are usually short—under 5 min.
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Fevers

- ✦ Febrile seizures, while frightening should not cause alarm.
- ✦ During seizure, place child on side and protect from environment.
- ✦ Ok to take fever reduction measures when seizures occur.


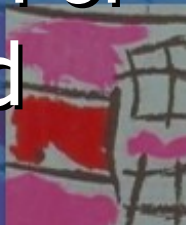
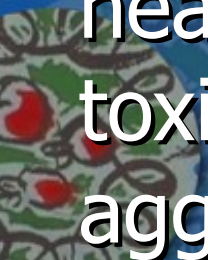
Fevers

- ↘ Maintaining fever at 102F generally well tolerated by child while still effective in battling infection.
- ↘ Interfering with average fever from infection may be counterproductive.
- ↘ Axillary temperature generally lower by 1-2 degrees F.





Fevers

- ✧ Treating fever is an issue of comfort for the child.
 - ✧ Usually higher fever goes, worse child feels.
 - ✧ Temperatures over 107.6F usually due to heatstroke, head trauma or ingestion of toxins. Requires emergency care and aggressive reduction of fever.
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Reducing Fevers

- ↘ Sponge with tepid water or tepid bath
- ↘ Hydration **extremely** important:
 - 4 oz water every hour for younger kids
 - 8 oz water every hour for older kids
 - Electrolytes usually only needed if diarrhea or prolonged fever/illness.





Reducing Fevers

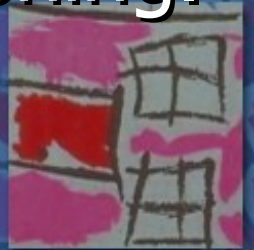
- ↘ Ounce or two of juice mixed with 6-7 ounces of water can provide flavoring for water.
- ↘ Vitamin C as ascorbic acid crystals:
 - ¼ teaspoon = 1,000 mg Vitamin C
 - Touch of stevia powder
 - Provides flavor of lemonade
 - Be mindful of dosing frequency





Reducing Fevers

- ↘ Cold/ice water not recommended—causes vessels to constrict and decreases body's ability to get rid of extra heat.
- ↘ Cold water may also cause shivering—increases body's internal temperature.
- ↘ No alcohol baths—small risk of poisoning.





Reducing Fevers

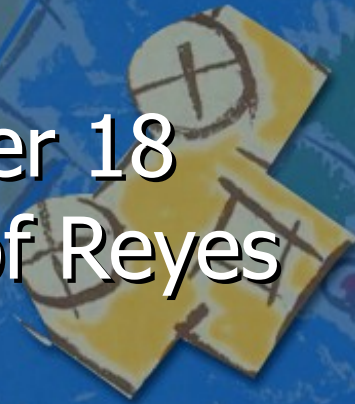
- ↘ No need to keep kids in bed because of fever. Fresh air may be beneficial—just keep children quiet and low-key.
- ↘ Do not pile blankets on a child w/ chill.
- ↘ Support with natural therapies as long as they do not suppress fever.
- ↘ Do not force a sweat.





Reducing Fevers

- ↘ If using medication, acetaminophen (Tylenol) is medication of choice.
- ↘ Do NOT use aspirin in children under 18 years who have an infection—risk of Reyes syndrome.
- ↘ 10-15 mg/kg every six hours (1 lb = 0.453592 kg)








Reducing Fevers

- ↘ Ibuprofen may be better at reducing fevers of over 103F
- ↘ Give at 10mg/kg every 6 hours.





Fever in Newborns

- ✧ Although fevers are not dangerous themselves, they are sign of infection.
 - ✧ Remember no relation between height of fever and seriousness of infection.
 - ✧ Babies 3 months of age and younger often do not show signs of infection until it is too late.
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Fever in Newborns

- Therefore, all children 3 months of age and younger should be seen by the doctor **IMMEDIATELY** when febrile!

Prevention & Treatments



Prevention/Treatments

- ↘ Healthy diet
- ↘ Steam inhalation with 2-3 drops eucalyptus oil to open up nasal passages and bronchi
- ↘ Plenty of rest
- ↘ Humidifier
- ↘ Gargle with salt water for sore throat

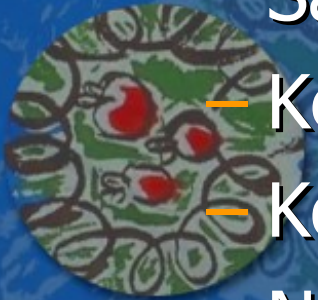
Prevention/Treatments

- ↘ Hydration – very important!
- ↘ Probiotics –
 - Healthy gut bacteria influences immune system
 - ↘ Create intestinal barrier against bacteria
 - ↘ Can keep bacteria from inducing genetic changes and infecting/enslaving normal cells



Probiotics

- ↘ Best source of healthy bacteria is fermented foods as they produce beneficial microbes during culturing process
 - Sauerkraut and other fermented veggies
 - Kefir – fermented milk
 - Kombucha – fermented tea
 - Natto – fermented soy



Probiotics

- ↘ Several products available for children:
 - Seroyal probiotics (HMF powders) are excellent
 - Jarrow Formulas (Baby's Jarrow-Dophilus



Vitamin C

- ↘ Vitamin C in water (previous slide) for both treatment and prevention
 - Important: Frequency of dose w/ Vitamin C and other antioxidants crucial. Antioxidants donate electron to microbe and destroy molecule. Once this happens, Vit C is reduced and doesn't work anymore; need more.



Warming Socks

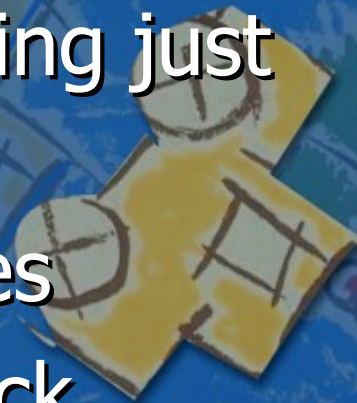
- ↘ Warming socks x 3 nights
 - Speeds up circulation in the body and decreases congestion in head, throat and respiratory passages
 - Cotton socks
 - Thick wool socks
 - Warm foot bath and towel





Warming Socks

- ↘ Soak cotton socks in cold water, wring just until not dripping
- ↘ Warm feet in bath at least 5 minutes
- ↘ Dry and immediately don cotton sock followed by wool socks
- ↘ Go straight to bed and cover up
- ↘ Cotton socks should be dry in morning



Zinc

- ↘ For treating colds/flu: 9-24 mg elemental zinc every two hours while awake when symptoms present (lozenge).
- ↘ Lozenges and nasal gel interfere directly w/ virus' ability to breed in moist environments—nose and throat

Zinc

- ✦ Zinc acetate and Zinc gluconate have greatest anti-viral effectiveness in gel and lozenges.
- ✦ Citric acid and Tartaric acid may interfere with virus-busting ability—be sure to read the label.



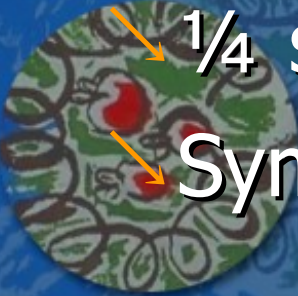
Selenium

- ↘ 100 mcg/day in divided doses for children with colds/flu
- ↘ Body Bio 8: Liquid selenium
 - ↘ No taste
 - ↘ 3 drops delivers 100 mcg





Colostrum Powder

- ↘ First secretion from mammary glands after giving birth
 - ↘ Rich in antibodies
 - ↘ 1/2 scoop twice daily during colds
 - ↘ 1/4 scoop twice daily preventively
 - ↘ Symbiotics brand
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Olive Leaf (*Olea europaea*)

- ↘ Antimicrobial
- ↘ Very effective
- ↘ 1-3 caps daily preventively
- ↘ 2 caps 4-5 times/day during illness
- ↘ Take with probiotics



Olive Leaf

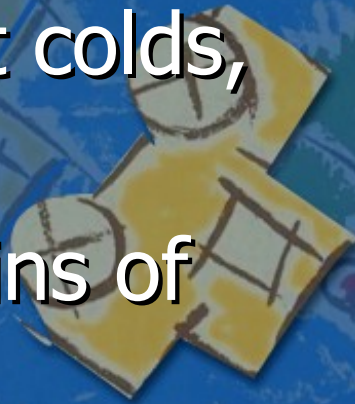
- ↘ Better for older kids (capsules)
- ↘ Often works where antibiotics do not
- ↘ Daily dose can also be very helpful for allergies





Black Elderberry (Sambucus Nigra)

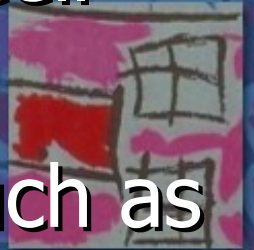
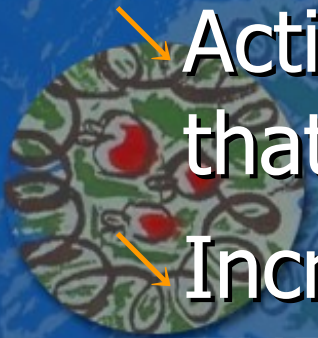
- ↘ Has been used for centuries to treat colds, flu's and sinusitis
- ↘ Very effective against different strains of influenza virus (antiviral activity)
 - Studies show reduced duration of flu symptoms by 3-4 days on average.





Black Elderberry

- Studies also show that serum of those treated with black elderberry had higher antibody level to influenza virus than control group.
- Activates monocytes – white blood cell that attacks viruses and bacteria.
- Increases inflammatory cytokines such as TNF alpha





Black Elderberry

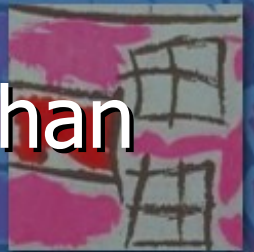
- ↘ Syrup, concentrate and powder
 - Nature's Way has many options
 - Kid's varieties usually aren't as strong, so recommend not using those
 - Can be used as preventive and as treatment
 - Tastes good on it's own without sweeteners





Black Elderberry

- ↘ Preventive: 1 teaspoon daily for kids
- ↘ During cold/flu: 1 teaspoon four times daily.
- ↘ Can even use hourly with selenium, zinc and Vitamin C
- ↘ Frequency of dose more important than size of dose.





Siberian Ginseng (*Eleutherococcus senticosus*)

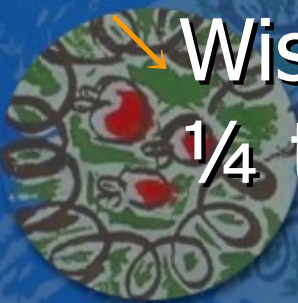
- ↘ Studies show boosts immune system
- ↘ May shorten time of infections
- ↘ Improves endurance





Siberian Ginseng (*Eleutherococcus senticosus*)

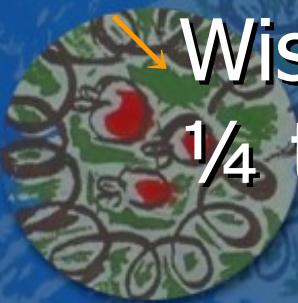
- ↘ Use as preventive and during illness
- ↘ Herb Pharm has alcohol-free tincture
- ↘ Eclectic Institute has glycerite (alcohol-free)
- ↘ Wise Woman Herbals has solid extract –
1/4 teaspoon per day





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Vitamin D

- Maintaining Vitamin D levels helpful for preventing colds
- Wintertime deficiency of Vitamin D from sunlight implicated in seasonal increase in colds and flu

Vitamin D

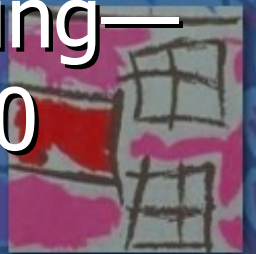
- ↘ 2007 study suggests higher Vitamin D level enhances immunity to microbial infections. Lower level = more days absence from work.
- ↘ 2009 study confirms strong, positive correlation between newborns' and mom's Vitamin D levels.

Vitamin D

- Pregnant mothers should optimize Vitamin D levels as newborns with deficiency have increased risk for ALRI.

Vitamin D

- ↘ Below Age 5: 35 units/pound/day
- ↘ Age 5-10: 2500 units
- ↘ Adults and pregnant women: 5000 units/day.
- ↘ Should test level before supplementing—
may need more or less; should be 60 ng/ml.



Vitamin A

- ↘ Strong antiviral activity
- ↘ Dose is typically around 50,000 IU per day for two days.



Echinacea

- ↘ Glycerites are available
- ↘ Helpful for prevention as well as treatment
- ↘ Echinacea: anti-microbial and immunomodulator
- ↘ Antibiotic action against strep and staph.



Goldenseal (Hydrastis)

- ↘ Glycerites available.
- ↘ Chief action is on mucous membranes, especially those of the outlets of body: eyes, mouth, nose, throat
- ↘ Antibiotic action



Review

- ↘ Signs and symptoms of ear infections, URI's and Flu
- ↘ When to go to the doctor
- ↘ When it's an emergency

↘ Fevers

- When a fever is dangerous
- Maintenance fever to fight off infections



Review

- Febrile seizures
- Reducing fevers conventionally and naturally



Review

↘ Prevention and Treatment

- Healthy diet
- Probiotics
- Vitamin D
- Olive Leaf
- Black Elderberry
- Colostrum



Review

↘ Prevention and Treatment

- Vitamin A
- Siberian Ginseng
- Warming socks
- Get rest
- Humidifier
- Vitamin C
- Selenium



Review

- ↘ Prevention and Treatment
 - Zinc
 - Hydration, hydration, hydration
 - Echinacea
 - Goldenseal (Hydrastis)



Questions??

