

Common Goat Diseases

Signs, Prevention, and Treatment

By

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Coccidiosis

- Common in young kids.
- Flourish in pens with manure buildup.
- Cause:** Coccidia parasites
- Eradication is difficult once the facilities are infected.
- Signs – diarrhea, loss of condition, general unthriftiness, poor growth, dehydration, blood in diarrhea, off feed, rapid weight loss, and fever



Coccidiosis

- # Treatment – coccidiostats added to water and feed and strict sanitation.
 - # **Treatment:** Treat with Biosol, give orally once a day for 5-7 days. Can also treat with half Corid or Sulmet
Also, can put Decox in the mineral
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Enterotoxaemia

- # Also known as overeating disease.
- # *Clostridium perfringens* type C & D, primarily type D.
- # Associated with change in quality and quantity of feed. *Clostridium perfringens* type D bacteria produce poisons when digestive tract deprives them of oxygen
- # Vaccination at weaning and a yearly booster will help in prevention.



Enterotoxemia

- # **Symptoms:** loss of appetite, depressed, high temperature, and watery diarrhea; as enterotoxemia progresses, the goat is unable to stand & will lie on its side making paddling motions. watery diarrhea, depression, convulsions, or death
 - # **Treatment:** Commercially available type C & D antitoxins should be given, plus treatment of acidosis.
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Acidosis

- # **Cause:** accidental consumption of large quantities of concentrate foodstuffs
 - # **Symptoms:** depressed, muscle twitching, grinding of the teeth, hangs its head, bloat, and swelling of the left flank
 - # **Treatment:** Stop access to food, drench goat with bicarbonate of soda (2-3 oz), walk the goat and contact veterinarian if needed
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Pregnancy Toxemia

- # **Cause:** a metabolic disease in does in late pregnancy, most of the nutrition is going to the kids. Similar to Ketosis.
 - # **Symptoms:** lethargy, loss of appetite, swelling of feet, laying around not wanting to get up, sweet-smelling breath
 - # **Treatment:** Give propylene glycol twice a day along with sodium bicarbonate and water twice a day.
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Ketosis

- # **Cause:** ketones accumulate in the blood of lactating does that are unable to obtain large amounts of energy feed
 - # **Symptoms:** off food, milk production decreases, breath smells sweet
 - # **Treatment:** a glucose drench can be given
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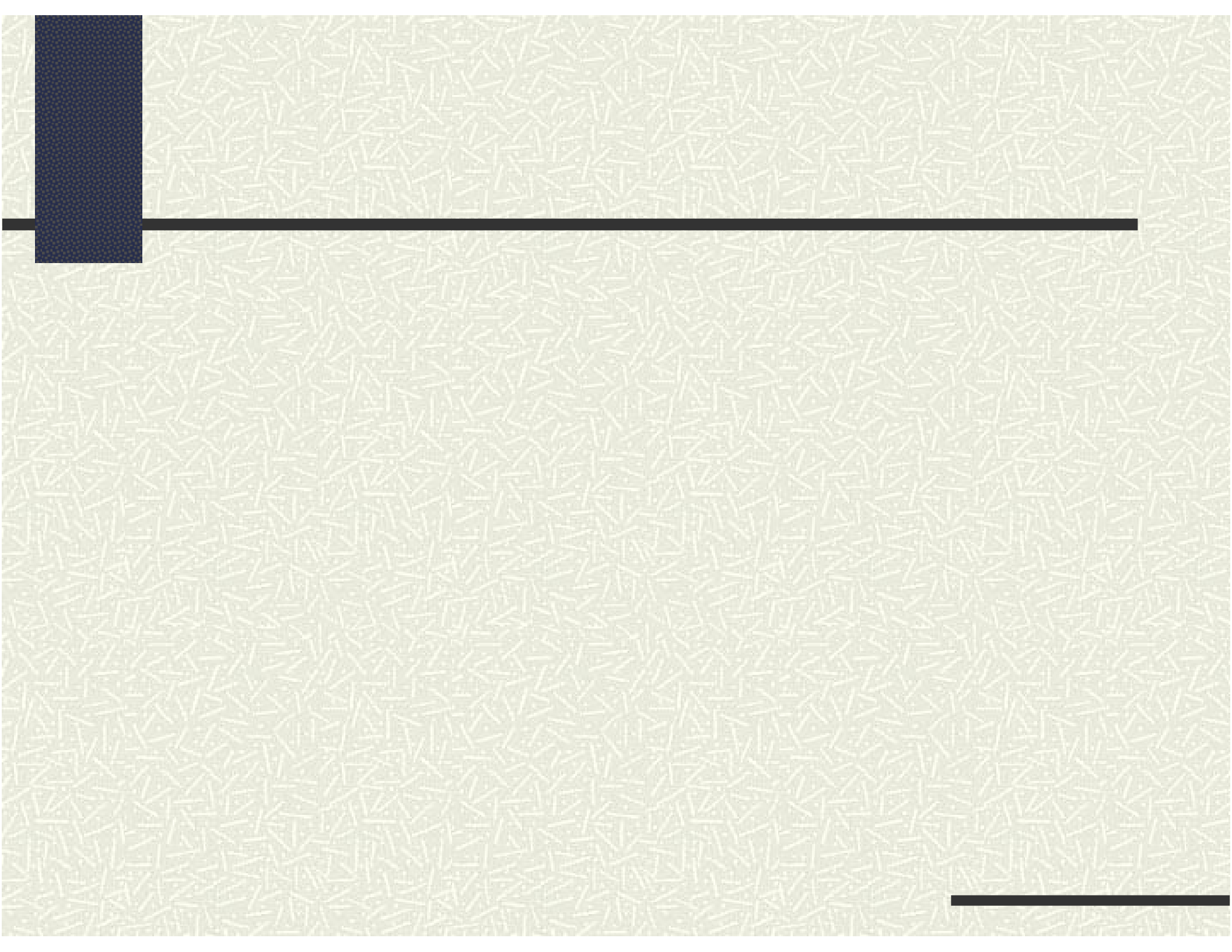
Tetanus

- # **Cause:** infection of open wounds by Clostridium tetani
 - # **Symptoms:** muscle stiffness causing an unsteady gait, animal looks anxious, convulsions, death results due to the animal being unable to breathe
 - # **Treatment:** Antibiotics- penicillin and antisera can be given but response is poor; flush wound with hydrogen peroxide and treat with penicillin
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Foot Rot

- # Signs – lameness
- # Prevention – fence goats out of wet, marshy areas where organisms causing foot rot more likely grow and keep hooves trimmed to proper length.
- # Treatment – copper sulfate foot bath and antibiotics.





Foot Rot



- # **Cause:** Flusiformis nodosus infection enters the hoof & causes inflammation of the sensitive laminae
- # **Symptoms:** mild to severe lameness, animals are reluctant to walk; associated with a foul smell
- # **Treatment:** Hoof paring in order to remove the underrun hoof. Apply antiseptics to remove any infection.

Laminitis

- # **Cause:** caused by consumption of highly concentrated or lush forage diets; causes inflammation of the skin layers around the hoof
 - # **Symptoms:** lameness, warm feet, stiff gait, prefers to lay down or stay on knees, bloat, diarrhea, & toxemia
 - # **Treatment:** reduced protein/energy diet should be fed & a soft bed should be provided; pain relief drugs, such as Phenylbutazone, is essential; hoof trimming may be necessary to relieve pain
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Pneumonia

- # **Cause:** infection of the lung
- # Respiratory Problem
- # Prevention – decrease stress by providing dry, well-ventilated housing with adequate space.
- # Symptoms – unthriftiness, runny nose, loss of appetite and high temp.



Pneumonia

- # **Symptoms cont.:** stops eating, hangs head, sounds congested, rapid or difficulty coughing and breathing
 - # **Treatment – Antibiotics** and correction of predisposing factors with environmental conditions.
Oxytetroccline; if severe, may require veterinary-only drugs
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Caprine arthritis-encephalitis

- # Also known as CAE
- # **Cause:** Virus
- # Transmission – ingestion of infected colostrums and milk.
- # Signs – lameness and arthritis, decreased appetite, paralysis of the hind legs, convulsions, seizure, and eventually reaching the area of the brain that controls respiration.



Caprine Arthritis Encephalitis (CAE)

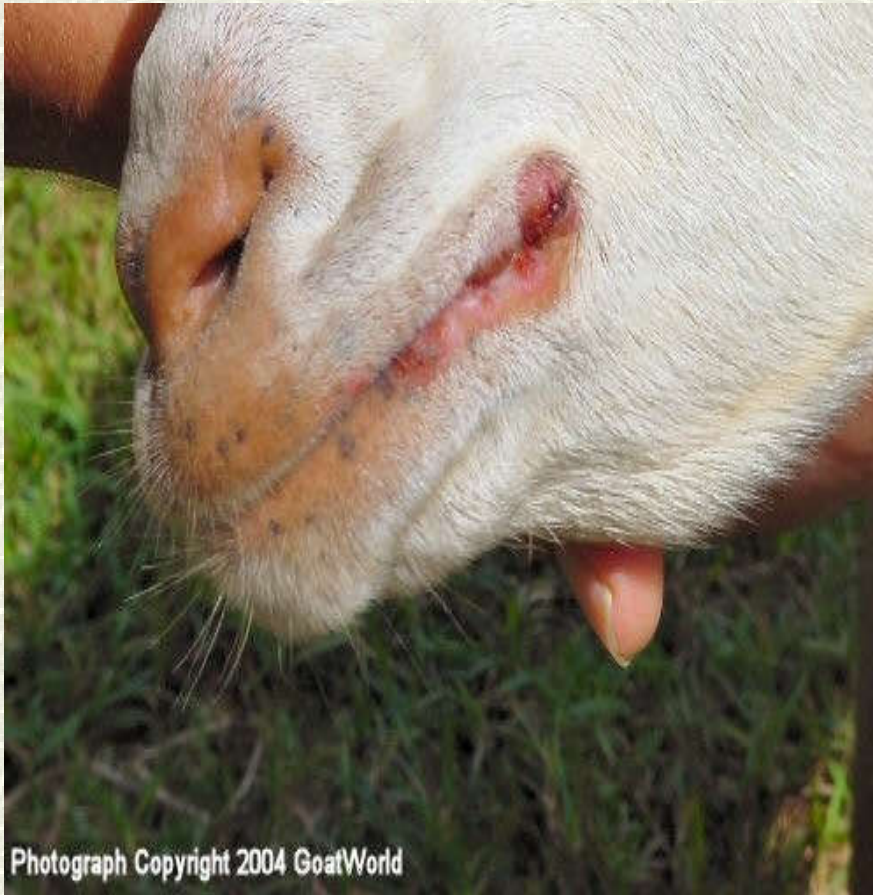
- # **Symptoms:** lameness, weight loss, enlarged knees, pneumonia, and chronic cough
 - # **Treatment:** Isolate and remove the goat from the herd. Treat symptoms but not disease, death is inevitable.
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Soremouth

- ⌘ Contagious ecthyma
- ⌘ Signs – difficulty eating, spreading lesions to the does udder
- ⌘ Vaccination – use live virus by scarifying the skin and painting on the vaccine.



Contagious Pustular Dermatitis (Sore Mouth)



- # **Cause:** infectious viral disease (affects animals and humans)
- # **Symptoms:** Pimples around the nose, mouth, eyes, anus, and hoofs. These turn to watery blisters then to sticky, encrusted scabs. The mouth and gums swell. Can cause death if the animal is unable to eat.

Soremouth



Sore Mouth cont...

- # **Treatment:** Isolate the goat and use an antibiotic spray or ointment. Vaccination is not recommended. Use a medication with Cephapirin Benzathine.



Pinkeye

- # Infectious keratoconjunctivitis.
- # Occurs in warm and hot weather because it is spread by flies and close contact.
- # Highly contagious.
- # Prevention – good sanitation, and fly control.



Pinkeye

- # **Cause:** spread by flies, dust and long grass
 - # **Symptoms:** watery eye, red and cornea is cloudy, sensitive to light
 - # **Treatment:** flush eyes with penicillin or Oxytetracycline for a few days and also isolate the animal from other animals.
Broad spectrum antibiotics, sprays and powders.
Remove from sunlight and cover with patch.
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White Muscle Disease (WMD)

- ✦ Seen in kids less than one week to three months in age.
- ✦ This disease is normally noted in rapidly growing, heavily muscled kids that were born to does that consumed rations deficient in vitamin E and/or selenium.
- ✦ Signs – weakness, poor suckling reflex, stiffness, arched back, “sawhorse” stance, respiratory distress, and sudden death.
- ✦ Prevention – Supplementation of vitamin E and selenium in pregnant does.
- ✦ Treatment – injection of selenium and 68 IU of vitamin E. If the heart has been affected treatment is rarely successful.



White Muscle Disease

- # **Cause:** deficiency of Vitamin E and Selenium
- # **Symptoms:** Stiffness, weakness, and trembling, unable to use back legs, can result in death
- # **Treatment:** give selenium with vitamin E



Scours

- # More common in young kids.
- # Caused by coccidia, E. coli, worms, salmonella, and viruses.
- # Signs – anorexia (won't eat), high temp, weakness, and watery or pasty feces.
- # Prevention – good sanitation.
- # Treatment – antibiotics, intestinal astringents (bolus or fluid to decrease contractions), and fluid and electrolyte therapy.



Chlamydial Abortions

- # Also known as enzootic abortion.
- # Chlamydial abortions occur in the last stage of gestation.
- # After a doe aborts from this disease they form immunity to it and will not abort on subsequent pregnancies.
- # Signs – does rarely show visible signs before occurrence.
- # Prevention – vaccinate does prior to breeding.
- # Treatment – tetracycline antibiotics



Polioencephalomalacia

(Goat Polio)

- # This is a Thiamine (Vitamin B 1) deficiency.
- # Caused by feeding too much grain and too little roughage.
- # Symptoms – excitability, “stargazing”, uncoordinated staggering and weaving, circling, diarrhea, and muscle tremor.



Polioencephalomalacia (Goat Polio)

- # **Symptoms cont.:** muscle rigidity, diarrhea, circling, staggering or weaving, excitability, apparent blindness, eyes moving fast, convulsions, and fever, death usually occurs within 24-72 hours
- # **Treatment:** Give thiamine and penicillin; if animal is unable to eat, give Revive orally and water several times a day. thiamine injection given intravenously if possible

Foot and Mouth

- # Viral disease of cloven-hoofed animals.
- # NOTE: If foot and mouth disease is suspected contact a veterinarian immediately.



Foot & Mouth Disease

Symptoms: blisters on the lips, tongue, teats, or the coronary band of the hoof; can become lame and have excessive salivation

Treatment: Prevent this before it occurs; destroy any animal that is exposed
Treatment – NONE; Animals exposed to the disease are destroyed



Johne's Disease

- # **Cause:** Mycobacterium johnei bacterium in the intestine; causes thickening of the intestine
 - # **Symptoms:** poor condition, scouring becomes more frequent with bubbles of gas in droppings, weakness, & thirst increases
 - # **Treatment:** Destroy animal as soon as possible to prevent spreading.
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Johne's Disease

- ⌘ Chronic incurable infection of the intestines by *Mycobacterium johnei* bacterium.
- ⌘ Causes a thickening of the intestine.
- ⌘ Signs – loss of condition, occasional scouring, weakness, and thirst may increase.
- ⌘ Treatment – None. Slaughter animal as soon as possible to prevent spread to other animals.



Blackleg

- # **Cause:** soil-borne bacterium, *Clostridium chauvei*.
 - # **Symptoms:** This disease occurs rapidly in affected animals and can cause death before the owner notices any sickness. May cause high fever, depressed appetite, depression, lameness, and swelling of the head and in the muscle on various parts of the body
 - # **Treatment:** Treat with penicillin or other antibiotics in large doses. Have a veterinarian drain the affected area of the swelled head.
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Bloat



- # **Cause:** gorging on anything unsuitable (example: wet grass pastures or raiding food bin)
- # **Symptoms:** Tightly inflated flanks, collapse, and misery
- # **Treatment:** Drench goat with vegetable or other oil (6-8 oz for adults & 2+ oz for kids), walk goat around, massage flanks. Contact veterinarian if this does not help.

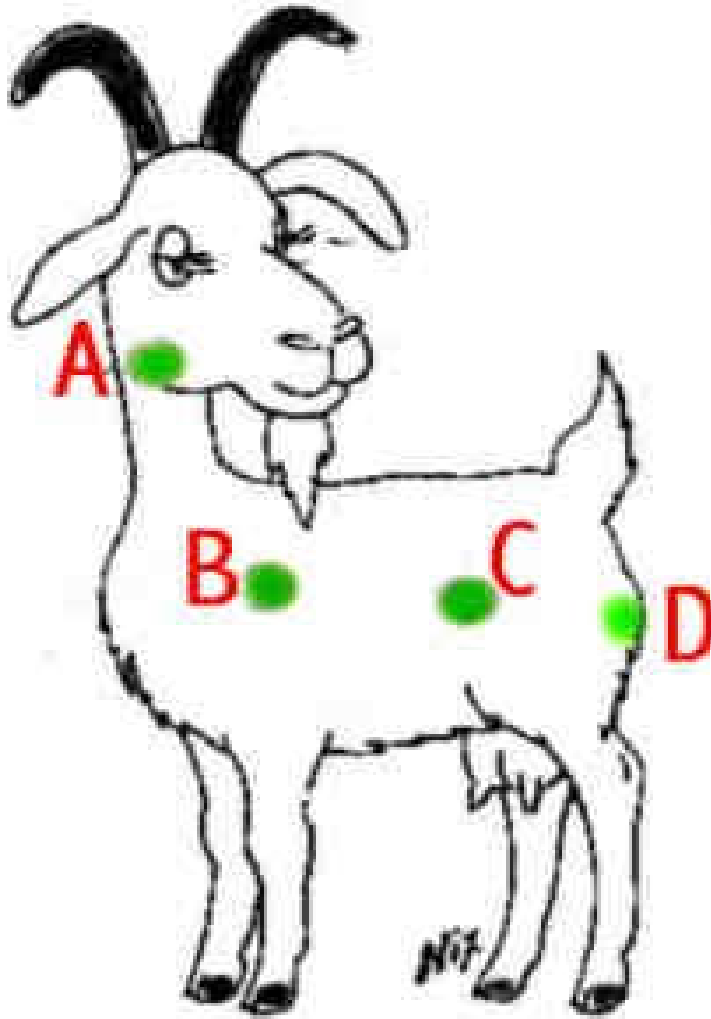
Brucella Melitensis

- # **Cause:** Organism excreted in milk, urine, and feces. Causes an infection of the placenta and udder.
 - # **Symptoms:** Abortion will occur in last 2 months of pregnancy
 - # **Treatment:** Vaccinations are available to prevent it, but generally the herd is slaughtered.
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Caseous Lymphadenitis (CL)

- # **Cause:** Bacteria enters the goat through breaks in skin or mucus membranes and localizes in lymph node.
 - # **Symptoms:** Abscesses of the lymph glands.
 - # **Treatment:** Have a Vet test to see if the abscess is CL. Isolate the goat, lance the abscess and remove discharge, then treat with iodine several times. Destroy all discharge.
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Caseous Lymphadenitis (CL)



Colic

- # **Cause:** affects young kids when diets are changed (such as mixing milk replacer at wrong concentration)
 - # **Symptoms:** restlessness, stands with back arched or hind feet placed well back, and cries out
 - # **Treatment:** If pain does not pass in a few hours, give $\frac{1}{2}$ pint of vegetable oil (for adults and less for kids) along with 1 glass of spirits in 2 glasses of water, repeat this hourly until the pain stops
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Floppy Kid Syndrome



- # **Cause:** believed to be caused by too rich milk or associated with *E. coli*
- # **Symptoms:** depression, weakness of limbs which progresses to flaccid paralysis, and goat may also have a drunken appearance
- # **Treatment:** Remove from source of milk for 24 to 36 hours. Dissolve 1 tsp of sodium bicarbonate in water & give 20-50cc orally, allowing the kid to swallow during administration. Repeat this procedure 1,3,6,12 hours after initial treatment. Also give electrolytes until returning to milk & give wide spectrum antibiotic to prevent secondary bacterial infections.

Indigestion

- # **Cause:** failure of normal ruminal movement; often associated with high intake of concentrate foodstuffs
 - # **Symptoms:** off of food
 - # **Treatment:** Usually recovers in 2 days; sodium bicarbonate can be given orally if there are acid conditions in the rumen.
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Listeriosis

- # **Cause:** caused by Listeria monocytogenes; feeding silage, sudden changes in kind of feed, parasitism, dramatic changes in weather, & advanced stages of pregnancy can be the onset of listeriosis
 - # **Symptoms:** depression, little appetite, fever, rigid neck pulled toward flank, facial paralysis on one side, move in one direction only, drooling, & abortions
 - # **Treatment:** Procaine penicillin every 6 hours for 3 to 5 days, then daily for 7 days
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Mastitis

- # **Cause:** inflammation of the udder; associated with germs
 - # **Symptoms:** udder is hot, hard and tender, loss of appetite, bruised looking udder
 - # **Treatment:** Antibiotics
 - CD antitoxin, Poly Serum, Penicillin, Banamine, and Nuflor
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Mycotoxin

- # **Cause:** fungus growth in old hay or feed poisons the animal
 - # **Symptoms:** depression, anorexia, excessive salivation, convulsions, and an arched back
 - # **Treatment:** Varies with the source of the problem. Remove bad feed and administer activated charcoal to inhibit additional uptake of toxin from the gut. Mineral oil may also be helpful.
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Navel III

- # **Cause:** dirty environment infecting the navel cord
 - # **Symptoms:** swollen, painful, red navel in young kid
 - # **Treatment:** Antibiotics, clean the area around the navel with antiseptic iodine, remove scabs and drain any pus pockets.
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Urinary Calculi

- # **Cause:** A hard mass of mineral salts in the urinary tract caused by a dietary mineral imbalance. Urinary calculi is usually seen in bucks.
- # **Symptoms:** straining to urinate, restlessness, vocal signs of pain, pawing at the ground, and looking at its abdomen
- # **Treatment:** Consult your veterinarian.



Chorioptic Mange

- # **Cause:** Chorioptes caprae; infests the skin of the lower leg
 - # **Symptoms:** itchiness and small scabs
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Psoroptic Mange

- # **Cause:** Psoroptes caprae; infests the ears
 - # **Symptoms:** head shaking and scratching
 - # **Treatment:** Use gamma benzene hexachloride and gammexane
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Sarcoptic Mange

- # **Cause:** Saroptes scabiei; burrows in the skin and lays their eggs in tunnels
 - # **Symptoms:** itching, red and hairless around the eyes, ears, and nose, and the skin becomes raised
 - # **Treatment:** Veterinary treatment is required due to infestation being passed to other goats.
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Demodectic Mange

- # **Cause:** Demodex caprae; invades hair follicles and sebaceous glands of the skin
 - # **Symptoms:** small lumps in skin, maybe cyst like or like a bag of fluid
 - # **Treatment:** Due to response to treatment being poor, it is best to consult your veterinarian.
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Ringworms

- # **Cause:** Fungal condition
 - # **Symptoms:** gray/white crusty appearance on skin, thickened skin and hairs thin or absent, enlargement of affected areas
 - # **Treatment:** Fungicides used as a liquid dressing. Use any of the following:
 - 0.5% Lime sulfur
 - 1:10 bleach
 - 1:300 Captan
 - 1% BetadineUse these daily for 5 days and then weekly.
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Ringworm



Bottle Jaw

- # **Cause:** blood-sucking worms
 - # **Symptoms:** lower face and jaw swell and gums may not be normal in color
 - # **Treatment:** Worm the goat with strong medicine every 11 days, for 3 times. May also need to give iron and vitamins.
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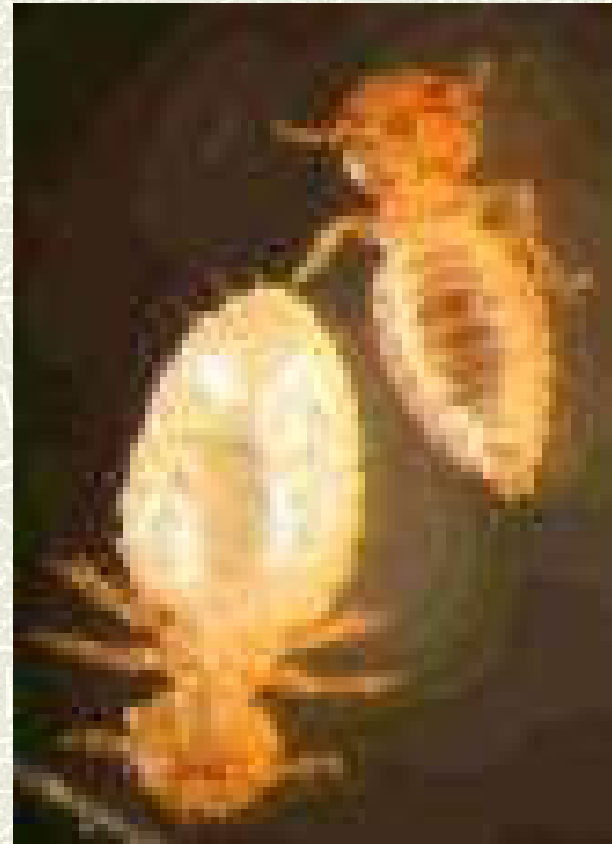
Lungworms

- # **Cause:** worms inhabit air passage & cause inflammation
- # **Symptoms:** chronic cough
- # **Treatment:** drench with dewormer



Lice

- # **Cause:** parasite
- # **Symptoms:**
irritation, rubbing,
bald patches,
itching, usually
occurs in the winter
- # **Treatment:**
powders, sprays, or
dips can be used



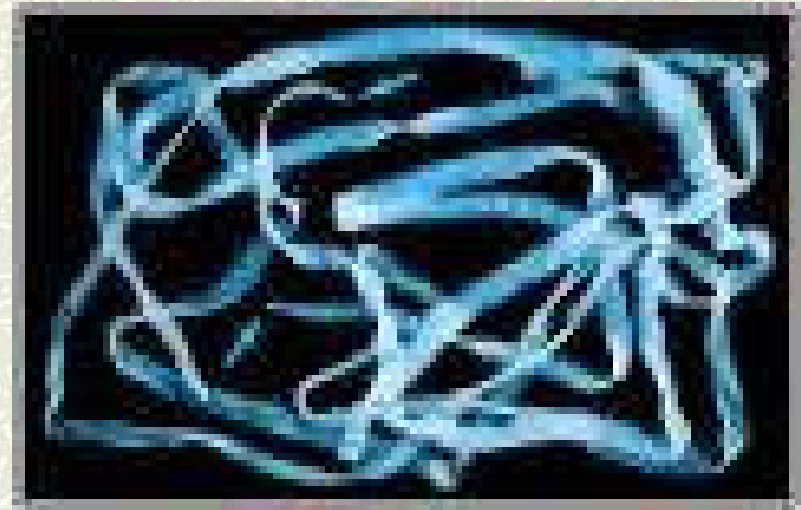
Gastro-intestinal roundworms

- # Infests stomach and intestines
- # **Symptoms:** diarrhea, weight loss, & anemia
- # **Treatment:** drench with dewormer



Tapeworms

- # **Cause:** inhabits the small intestine
- # **Symptoms:** Passing of tapeworm segments in feces in young goats during the summer months
- # **Treatment:** anthelmintic- albendazole can be used; oral niclosamide is highly effective



Conclusion

- # Strict sanitation is necessary to prevent diseases. Although sanitation requires time and money, it is time and money well spent since prevention of the diseases is more economical than treatment. The housing for goats plus their food and water must be kept clean and dry.
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