

Table of Contents

Diseases	6
Aspergillosis	
Bacterial Secondary Infections	
Candida Infection	
Canker (Trichomonas Gallinae)	
Coccidiosis	
E. Coli (Collibacillosis)	9
Gout	9
Haemophilus Catarrh	
Hexamitiasis	
Infectious Catarrh	
Mycoplasmosis Catarrh	
One Eye Colds	
Ornithosis	
Paratyphoid (Salmonellosis)	
Pigeon Pox	
PMV-1(Paramyxovirus)	
Pneumomycosis	
Poisoning	
Pigeon Malaria	
Respiratory infections	
Salivary Stones	
Salmonellosis	
Sour Crop	
Staphylococcus Infection	
Streptococcus Infection	
Trichomoniasis	
Tuberculosis	
Young Bird Sickness	
Parasites	23
Worms	
Roundworm	
Tapeworm	
Hairworm (threadworms)	
Gapeworms	
Ectoparasites	
Long Louse	
Small Louse	
Feather Quill Mite	

Itch Mite	25
Red Mite	25
Vitamins	
Vitamin A	
Vitamin B1	
Vitamin B2	
Vitamin B6 & B10	
B10 (Folic Acid)	
Vitamin B12	
Vitamin C	
Vitamin D	
Vitamin E	
Vitamin K	
Symptoms	
Air Sacs, Inflammation	
Balance Disorders.	
Breast, Blueish Breath, Short of	
Breath, Short of Breathing Rapid	
Canker	
Condition, General, Impaired	
Conjunctivitis, Bilateral	
Conjunctivitis, Unilateral	
Consumption, Complete	
Crop, Mucosa, Swollen	
Crop, Puffy	
Crop, Sour, Water Filled	
Debility	
Diarrhea, Bloody	
Diarrhea, Greenish	
Diarrhea, Malodorous	
Diarrhea, Muco-aqueous	
Diarrhea, Rice Water-like	
Disorder, Systemic	
Down, Moulting, Cessation	
Droppings, Formed but in puddles	
Droppings, Mucoid in yellow-green puddles	
Droppings, Soft	
Droppings, Sourish-Smelling	
Droppings, Wet	
Eggs, Poor Hatchability	
Eggs, Thin Shells	
Elbow Joint, Thickening	
Emaciation, acute	
Enteritis, acute	

Eye Discharge, Watery	.33
Eyelid, Swollen	.33
Eyelids, Severe Swelling	.33
Feather Formation, Inadequate	.33
Feather Pulling	.33
Feathers, Loss of	.33
Feed Intake, Increased	.34
Feed Intake, Reduced	.34
Fly, Reluctance	.34
Growth Retardation, Nestlings	
Joint, Swollen	
Lacrimal Sac, Bulging	.34
Laryngeal Deposits, Whitish-Yellow	
Leg Joint, Thickening	
Leg, Paralysis	
Listlessness	
Mortality, Nestlings	.35
Movements, Twisting	
Mucus (beak), stringy	
Nasal discharge, aqueouse	
Nasal discharge, mucopurulent	
Nasal discharge, yellowish brown	
Neck, torsion of the	
Nervousness	.36
Newcastle Disease	.36
Nictitating membrane, inflammation	.36
Nose scratching	.36
Nose wattle, grey	.36
Overturning	.36
Paratyphus	.36
Performance, rapid reduction	.37
Performance, reduced	.37
Plumage, puffed-up	.37
Plumage, rough	
Proliferations, scabby	.37
Rattling	.37
Respiration, difficulty in	.37
Respiratory murmurs	
Restlessness	.38
Sneezing	.38
Throat mucosa, reddening	.38
Throat mucosa, white to grey dots	.38
Throat mucosa, yellow dots	.38
Throat, swelling of the mucosa	.38
Timidity	.38
Tongue, greenish furring	.38

Umbilical abscess, squabs	
Umbilical infection, squabs	
Vitality, reduced	
Vomiting	
Walking backwards	
Water intake, excessive	
Water intake, increased	
Water intake, reduced	
Weakness, nestlings	40
Weight, loss of	
White dots (throat)	40
Wind pipe (trachea), inflammation of	
Wing paralysis	40
Yellow dots (throat)	

Diseases

Aspergillosis

Aspergillosis is a fungus disease of birds, animals and humans. It is usually characterized in the pigeon as a chronic infection of the lungs and air sacs. Another name for this disease is pneumomycosis.

Pathogen/Cause:

Aspergillus fungi. They grow as multicellular, fluffy mold colonies, freeliving in the soil, on vegetation or parasitic living in or on birds, animals, and humans.

Symptoms

Respiratory form: difficulty in breathing; greenish deposits on tongue and palate.

Skin form: skin scaling off with breaking of feathers.

Recognition

Cadaver examination: Fungal lawn in lungs. Microscopic examination of deposits and skin scrapings.

Treatment:

Elimination of source of infection (e.g. moldy feed), separation of affected birds. No treatment is recommended for Aspergillus respiratory infections in pigeons.

Skin infections can be successfully treated e.g. with copper sulfate (1:2000 dilution) or a solution of mercuric chloride (1:500 dilution).

Prevention:

Dry, well ventilated loft, good quality feed, administration of vitamins.

Bacterial Secondary Infections

Pathogens/Cause:

Bacteria, like streptococci (Streptococcus faecalis, Streptococcus gallinarum), staphylococci (Staphylococcus aureus). Streptococcosis is an uncommon acute or chronic bacterial disease that can occur in pigeons. Contaminated feed or water and infected birds transmit the streptococci. The bacteria enter through body openings and breaks in the skin. Generally only a few birds in a flock become infected at any one time.

Staphylococcus organisms occur worldwide. They commonly reside on the skin and mucous membranes without causing infection. The potential for bacterial infection largely resides in the degree of resistance that the host is capable of mobilizing.

Symptoms

Salmonellosis-like symptoms. Diarrhea, listlessness, paralysis, emaciation particularly in young pigeons. Abscess-like nodules in all organs, especially the intestine.

Recognition

Bacterial examination of droppings and tissue.

Prevention:

Hygienic loft conditions. Observe general rules of prevention (e.g. disinfection by using desinfectans).

Candida Infection

Thrush is a common acute or chronic fungus infection especially of the digestive tract. Other names for this disease are mycosis, soor, muguet, sour crop.

Pathogen/Cause:

Candida albicans, a yeastlike organism.

Symptoms

Poor growth of young pigeons, accumulation in the crop; whitish fungal growths in the throat.

Recognition

Microscopic examination of the fungal growths in the throat.

Treatment:

Separation of affected birds. Administration of Nystatin (veterinary) and high levels of Vitamin A.

Prevention:

Improving the environment.

Canker (Trichomonas Gallinae)

Canker is a protozoan disease that is the greatest killer and crippler of the pigeon diseases. It is found in domestic and wild pigeons and doves.

Cause

It is spread by contacts between pigeons, such as billing, mating and feeding young. The organism will live for some time in water or in damp locations.

Symptoms

A swelling in throat and cheesy growth in the mouth are certain signs of canker.

Cure

All forms of canker can be treated if found early. Many different types of medicine are available for curing canker. Ridzol Soluble Powder For flock treatment, Ronidazole Tablets for individual treatment.

Coccidiosis

Coccidiosis, a protozoan disease, is an infection of the intestines.

Cause

Most prevalent under conditions of poor nutrition, poor sanitation, or after stresses. Can be spread by a pigeon eating droppings. Make sure that feed is free from droppings.

Symptoms,

The principal cause of going light. In adult birds, an acute infection is shown clinically by a pale pallor of the inside of the mouth. The appetite diminishes slowly, while thirst increases. In early stages, the droppings are loose and take on a greenish color.

Cure

Steps should be taken to see that all vessels containing food, grit, and water are kept thoroughly covered and their contents completely protected from droppings and contaminating feet. With the stopping of the further eating of the oocysts, the life cycle is broken and new generations prevented. Nidrakok (Rohnfried) contains Amprolium suitable as drinking water treatment for the disease.

E. Coli (Collibacillosis)

A gram-negative, rod shaped bacterium normally found in the intestines of poultry and most other animals.

Cause

Infection occurs when largo numbers of E. Coli gain access to the bloodstream from respiratory tract or intestine.

Symptoms

Signs are nonspecific and vary with age. Chicks may die in the nest. Adults birds lose weight and their droppings become very loose slimy.

Cure

Keeping clean loft and rodent population under control. Treat with general Antibiotics such as Aureomycin.

Gout

Possible causes:

Water shortage, kidney damage, nutritional deficiency

Symptoms

Nodular painful swelling of the joints. Liver and peritoneum, pericardium, air sacs appear as if dusted with lime (uric acid crystals). Kidneys swollen, interspersed with uric acid deposits.

Recognition

Microscopic examination of the deposits (crystals).

Prevention:

Ensure adequate vitamin intake and exercise. Feed birds as required by performance.

Haemophilus Catarrh

Pathogen/Cause:

Haemophilus bacteria (p.e. Haemophilus gallinarum). Infected although apparently healthy poultry serve to spread the organism. Haemophilus is transmitted via the drinking water, which is contaminated with nasal discharge.

Symptoms

Severe bilateral conjunctivitis with mucopurulent discharge. Extreme swelling of the eyelids ("owls head"). Catarrh symptoms.

Recognition

Bacteriological examination of eye or nasal discharge.

Prevention:

Elimination of possible factors that reduce the bird's resistance to infection. Such factors may be: overcrowding in the loft, lack of cleanliness, latent infections (e.g. ectoparasites, worm infestations, coccidial infection), excessive stress in breeding, deficient feed, poor water supply, stress during the racing season.

Hexamitiasis

Hexamitiasis is an intestinal disease of pigeons that is associated with mucoaqueous, or even bloody feces.

Pathogen/Cause

The flagellate, Hexamita columbae occurs in pigeon flocks mainly in the summer and autumn months. It primarily colonises the rectum. Especially susceptible are newly weaned squabs, whose resistance is still low. Infected adult pigeons do not normally show visible signs of the disease, but can excrete the pathogen in large quantities in their droppings (chronic carriers). The incubation period is 4-5 days.

Symptoms

Acute catarrhal (or even bloody) enteritis with liquid, rice water-like or mucoid, malodorous diarrhea.

Affected pigeons refuse feed and drink more water, resulting in emaciation and debility. Young birds in particular sometimes succumb so severely that the entire intestinal tract is involved and the soft or aqueous feces is mixed with blood.

Recognition

Hexamitae are demonstrated via microscopic examination in bodytemperature smears from the intestinal mucosa of a recently killed, acutely affected pigeon. With extremely severe infestation, it is also possible to demonstrate the parasites in a cloacal swab from a live bird. They can be recognized from their characteristically rapid movements in a straight line in contrast to trichomonads, which exhibit slow, circular movements around their own axis.

Infectious Catarrh

Diseases of the respiratory tract are very often mixed infections. Outbreaks of the disease result from the combined effects of pathogens and factors within the loft environment that reduce the birds' resistance to infection.

Pathogens

The door to infection is opened by mycoplasma and viruses, in addition to fungi und trichomonads. These lower the pigeons' resistance and allow

pathogenic bacteria - pasteurella, cocci und coli bacteria - to colonize and multiply. It is these secondary pathogens that engender the actual clinical picture of visible and audible catarrh (wheezing).

Catarrh is not always caused by pathogens. Very often, inadequate ventilation and waste-air extraction, drafts, a deficient supply of oxygen and high concentrations of noxious gases and dust in the loft reduce the pigeons' resistance, making them extremely susceptible to infection.

Symptoms

Initially the pigeon fancier notices sneezing and an aqueous nasal discharge, which in the acute form of the disease becomes mucopurulent and yellowish brown in color. This is accompanied by the first signs that the birds' general condition is impaired, namely reduced feed and water intake, cessation of down molting and a reluctance to fly. The wattle and bridge of the nose turn grey and there is scratching of the head and nose. When the beak is opened, stringy mucus can be seen stretching from the retrolingual region to the palate. Additional clinical signs are a reddening and swelling of the pharyngeal mucosa.

In the advanced stage of the disease, whitish-yellow deposits are formed in the laryngeal region. The inflammatory processes extend to the windpipe and the lower respiratory tract (air sacs).

Recognition

The diagnosis "infectious catarrh" can usually be established simply from the behavior of affected pigeons, the inflammatory changes in the head region and respiratory tract and the characteristic sounds of respiration (wheezing). Veterinary examination and bacteriological demonstration of the pathogen are recommended on first suspicion of disease.

Mycoplasmosis Catarrh

The chronical form of catarrh in pigeons often is called "Mycoplasmosis". It is caused by a multiple infection with pathogens: bacteria (e.g. Cocci), viruses (e.g. Herpes) and pathogens which belong to the group of mycoplasma organisms. It is assumed that mycoplasma causes severe conditions only in the presence of other infections.

Pathogen/Cause

Outside the animal body, mycoplasma organisms are viable only for a short period (approx. 17 days at 20°C, but only 20 minutes at 50°C). Low temperatures favor their survival. Mycoplasma organisms are killed by almost all commonly used disinfectants, e.g. disinfectants. Transmission takes place through the feces, the drinking-water, feed, equipment and by droplet infection from pigeon to pigeon.

Symptoms

Mucopurolent discharge from the nose, reduced flying performance, unwillingness to fly, flying awkwardly, throat inflammation, rattling and wheezing sound of respiration particularly noticeable by night. Air sac inflammation.

Recognition

Cadaver examination: air sac inflammation Serological blood test

Prevention:

Elimination of possible factors that reduce the bird's resistance to infection. Such factors may be: overcrowding in the loft, lack of cleanliness, latent infections (e.g. ectoparasites, worm infestations, coccidial infection), excessive stress in breeding, deficient feed, poor water supply, stress during the racing season.

One Eye Colds

This not a true cold it should be classed as an eye infection.

Cause

Infection of the eye caused by injury, or foreran matter in the eye causing infection of the eye.

Symptoms

First symptom is watery eye. This discharge later thickens, the feathers around the eye may become matted together with a yellow fluid.

Cure

Terramycin Opthalmic Ointment applied daily to the eye will usually clear up the infection with a few days.

Ornithosis

Ornithosis is an infectious disease that affects many bird species worldwide. It can also be transmitted to humans and other mammals. In Germany, ornithosis is a notifiable disease in pigeons.

Pathogen

Chlamydia psittaci. Chlamydia are small, non-motile micro-organisms that invade cells parasitically. Infection occurs via inhalation of stirred-up dust containing the pathogen, uptake of faecally contaminated feed or water, or else billing or feeding of squabs.

Symptoms

Ornithosis occurs in 2 forms:

The acute form can be recognized in young pigeons from: wheezing noises, uni- or bilateral conjunctivitis and muco-aqueous enteritis with diarrhea. The chronic form is more often found in adult birds, which, however, show few or no signs of the disease. Pigeons that have recovered are a dangerous source of infection for young pigeons and for humans due to their latent shedding of the pathogen.

Recognition

The disease can be demonstrated in dead pigeons by microscopic examination of a smear or impression ("klatsch") preparation of spleen, liver, conjunctiva or air sac that has first been stained using the method according to Stamp. In live birds, the pathogen is demonstrated in feces, via a sink dab from the cloaca, or alternatively by serological identification of specific antibodies.

Treatment

Flocks are treated with chlortetracyclin+, which has been successfully used for many years to control ornithosis. In order to maintain effective blood levels, administration of chlortetracyclin+ must not be interrupted during the 30-day treatment period.

Paratyphoid (Salmonellosis)

A deadly killer of pigeons is also one of the most difficult diseases to recognize when present in the flock.

Cause

The disease can be spread by a number of different means, but the highest form of contamination is water and droppings. Wild birds, and rodents are all carriers of Paratyphoid.

Symptoms

Symptoms in adult pigeons may vary. Swollen joints, fluid filled lumps, swelling in the legs and limping are all signs of the disease.

Cure

Once you are sure that a bird has contracted Paratyphoid, kill or isolate it. Then treat your entire flock with any of the following medications: Enroflaxyn Tablets, Tetracycline Amoxycillinum Tablets. Use of salmonella vaccine proven to be effective prevention.

Pigeon Pox

Pigeon pox is caused by a virus. Found in all parts of the United States.

Cause

Most common source of infection is through bloodsucking parasites, such as mosquito, mites.

Symptoms

Small blisters appear around eyes or on the face and body. These enlarge, latter become festered, then scab over.

Cure

Once a pigeon has had pox and recovered it is immune for life. The best preventive is vaccination. Pigeon pox vaccine is inexpensive and easy to administer.

PMV-1(Paramyxovirus)

Extremely contagious viral infection unique to pigeons.

Cause

Disease can spread from contaminated feed, water, Direct or indirect contact.

Symptoms

Symptoms include extreme watery droppings, loss of appetite, Loss of coordination, in latter stages twisted neck and paralysis of the wings. High loss of birds.

Cure

No cure just prevention with vaccination. Maine Biological oil adjuvant PMV-1 vaccine.



See: Aspergillosis

Poisoning

Possible causes:

Insecticides, plant protection agents, artificial fertilizers etc.

Symptoms

Sudden onset of paralysis, intractable diarrhea, loss of appetite, rapid loss of weight. Violent intestinal inflammation. Swelling of liver, spleen and kidneys. Hemorrhages in muscles and organs.

Recognition

Case history. Cadaver examination. Demonstration of poison is possible in some cases.

Treatment:

Separate affected pigeons; irrigate crop; give animal charcoal,

Pigeon Malaria

Pigeon Malaria is caused by protozoan that targets the pigeon's red blood cells.

Cause

Pigeons are most commonly infected by the pigeon fly.

Symptoms

Symptoms hard to determine, birds may show signs of reduced performance and their plumage may become dull.

Cure

Curing Pigeon Malaria is very difficult. Prevention is the best cure. Control Pigeon fly in the loft and on the birds with dips and powdered insecticides.

Respiratory infections

Cause

Upper reportorial bacterial infection. Poor ventilation control dampness and overcrowding.

Symptoms

Watery eyes mucous in the throat and rattling lungs. Birds may gasp for air. Cure good ventilation controlling dampness and overcrowding. Aureomycin concentrate soluble

Salivary Stones

Occasionally, when examining pigeons small hard white spots are discovered in the area of the crevice in the roof of the mouth and particularly in the rear part.

By almost 1 % of pigeons these fine millet sized nodules are found singly and sometimes 10 or more. It was always assumed that they were small areas of trichomoniasis (canker) but by today's understanding that is not the case.

Cause:

It is commonly known that there are numerous small salivary glands in the mucus membrane of the pigeon's mouth which secrete saliva so that the feed is slightly moistened to allow it to be more easily swallowed. To date it is not known what causes these little white spots which are hard and are known as salivary stones. By examining tissues and the chemicals of these spots or stones it has been proven in Holland that they consists of a mixture of mucus and fine small grains of parts of the cells from the salivary glands. These in turn are rolled into small hard balls and block up the openings of the ducts of the salivary glands. At first they appear to be grey but later they become white in color.

Treatment:

Experience have shown that no treatment has been successful. Surgical removal only leads to bleeding and damage to the mucus membrane. However, the health and performance of the pigeon is not affected.

Prevention:

Further research has shown that careful and regular treatment with chevicol®+ together with good hygienic conditions helps to prevent the reoccurrences of these spots.

In addition, at the first appearance of any colds which increase the heavy accumulation of mucus and inflammatory changes in the pharynx and along the throat, treatment against catarrh should be continuous until cleared of all symptoms.

Salmonellosis

Salmonellosis has one of the highest mortality rates of any infectious bacterial disease of pigeons.

Pathogen/Cause

Salmonella typhimurium var. copenhagen, designated as the "pigeon type"

salmonella strain. Given the right conditions, the bacterium can remain infective in the environment for 1 year or more.

Salmonellae are spread by:

- inhalation of dust containing the pathogen
- contaminated feed (insects, mice, rats)
- dirty feed troughs and water bowls
- mating
- transmission from the hen to the egg
- feeding the nestlings with infected crop milk and billing
- Chronic carriers: pigeons that appear healthy after surviving salmonella infection, but shed the pathogen at irregular intervals and thus pose a risk to the current flock and their progeny.

Clinical signs:

• Acute form (mainly affects young pigeons):

Enteritis with pulpy, mucoid, greenish droppings; once organs (liver, kidneys, spleen) have become infected, there is growth retardation, emaciation and (in isolated cases) death. Embryos infected with salmonellae frequently die in ovo or during the first few days of life.

• Chronic form (mainly affects adult pigeons):

Inflammation causes a thickening of the joints, especially the elbow joint, wing or leg lameness, disorders of balance and torsion of the neck. Recognition of the disease: Bacteriological examination of faecal and/or organ samples. An antibiogram is performed to determine which medication is suitable for treatment purposes.

Treatment:

Upon appearance of the symptoms described, treatment with chloramphenicol-N should be started immediately. In some cases it is necessary to change the treatment (e.g. to ampicillin-t) when the results of the bacteriological examination and antibiogram become available. Treat the entire flock rather than individual birds.

Cull severely affected pigeons before beginning the treatment, since it is unlikely that they can be cured.

To check the outcome of the treatment, carry out bacteriological examinations on fecal samples. These should take place at least 14 days after termination of treatment, and then repeated twice at 3-week intervals.

Sour Crop

Cause

Bird's eating food that is wet, moldy, sour or contaminated. Dirty drinking water is another source of trouble.

Symptoms

Pigeon will drink large amounts of water because of nausea. Vomiting of sour water and grain.

Cure

Sour crop is an easily treated health issue. Hold the bird with the head pointing down and push gently from the bottom of the crop upwards, forcing the stale water out of the crop. Fill the crop with baking soda or charcoal. Hold feeding for 24 hrs.

Staphylococcus Infection

See: Bacterial Secondary Infections

Streptococcus Infection

See: Bacterial Secondary Infections

Trichomoniasis

See: Canker (Trichomonas Gallinae)

Tuberculosis

Tuberculosis in pigeons is an old sporadic, widespread, contagious bacterial disease.

Pathogen/Cause:

Mycobacterium avium. In the Mycobacterium avium complex 20 serotypes are listed. Birds vary in their resistance to the different serotypes. Serotypes 1 and 2 predominate. In pigeons the infection may be ingested in droppingcontaminated soil, food, grit, or water.

Symptoms

Insidious course of the disease over a period of weeks. Increasingly impaired general condition of some pigeons to the point of complete emaciation. Greyish-yellow caseous nodes, particularly in liver and spleen. Similar conditions with the organ form of trichomoniasis or salmonellosis, but there are almost always additional signs of these diseases which enable a definite diagnosis to be established.

Recognition

In the living bird: tuberculin test Cadaver: bacterial examination of the organs

Treatment:

Not advisable, since a cure is not possible.

Prevention:

If disease suspected, tuberculin-test with all birds. Kill affected pigeons.

Young Bird Sickness

Young bird sickness has spread rapidly around the world in recent years, causing severe losses among young birds.

Pathogen/Cause:

This is a mixed infection, involving viruses and bacteria (especially E.coli and cocci, but also protozoa). The pathogens are transmitted by air, dust and contact between birds, as well as via communal drinking water and feed. Outbreaks of the disease are promoted by stress factors such as weaning, the introduction of strange birds into a loft, vaccination, heat (accelerated bacterial growth, water shortage), training of juveniles (basketing) and young pigeon flights.

Symptoms

The disease can take two forms:

Sudden death not preceded by any perceptible signs of illness: A typical scenario sees young pigeons released from the loft for their daily training (on a hot summer's day, perhaps), whereupon they fly around for an hour and then return to the loft. They land on the roof or on the alighting ledge, do not respond to the breeder's attempts to entice them into the loft, and die within the space of a few hours.

Death preceded by visible signs of illness:

During the period between the onset of symptoms and death (lasting from 3 days to 1 week), the following symptoms are observed: lack of activity, puffed-up plumage, refusal of feed, swelling of the crop, weight loss, greenish-yellow feces in puddles, vomiting.

Recognition

Owing to the numerous pathogens involved in this disease, it is only possible to make a tentative diagnosis.

Treatment:

There is no vaccine against young pigeon disease that could be used to prevent infection. However, sick pigeons can be treated with <u>adenosan</u>. And timely use of adenosan may also prevent an outbreak of the disease in birds suspected of infection.

Parasites

Worms

Common Types Roundworms, Tapeworms, Hairworms, Gapeworms.

Cause

Worm eggs are passed in droppings and by birds eating Slugs, Earthworms and pill bugs can get worms. Symptoms

Roundworm

Most common found in pigeons. Worm lives in the intestine and feeds on digested food. Pigeons may become sluggish.

Tapeworm

Lives in the Small intestine. Pigeon may become sluggish. Insects are a common carrier.

Hairworm (threadworms)

anther common pigeon parasite. Heavily infested pigeons have diarrhea and sluggish, loose interest in feeding and drinking.

Gapeworms

Pigeons eating earthworms is one way a pigeon can get gapeworms. Gape worms can cause breathing problems.

Cure keeping a clean loft and a preventive program of deworming at least every six months.

Ectoparasites

Ectoparasites are widespread in pigeon flocks. They damage the pigeon's organism in various ways.

Pathogens/Cause:

Feather lice, scaly-leg mites and body mange mites live permanently on

infested pigeons, leaving them only to seek new hosts. Pigeon ticks, bird ticks and red bird mites attack pigeons only periodically at night to suck blood. Otherwise, they conceal themselves in cracks in the loft. They can transmit pathogens.

Recognition of the disease:

Feather lice are visible in the pigeon's feathering with the naked eye. To assist detection, hold the pigeon against the light with its wings outspread. Infestation with body mange mites and scaly-leg mites can be confirmed by microscopic examination of a scraping from inflamed skin. Pigeon and bird ticks and red bird mites can be detected with the naked eye in cracks in the loft - ideally in the early hours of the morning, when the parasites leave the birds in search of a hiding place. They are also found under feeding troughs and nest bowls.

Prevention

Clean feed and water vessels with hot water. Regular bathing in clean water - at least once a week - protects pigeons against parasite infestation.

Long Louse

Found on feathers of the whole body. They feed on feather scuff and cause little damage.

Cure

Dipping and dusting the loft and the birds with pesticides.

Small Louse

Do not like light and are found on the underside of the body feathers. They eat feather scurf and cause prickling and burning irritation.

Cure

Dipping and dusting the loft and the birds with pesticides.

Feather Quill Mite

Found on the feathers shaft of the flight feathers. Causes much irritation. They appear as small black specks on the sides of the feathers shafts.

Cure

Dipping and dusting the loft and the birds with pesticides.

ltch Mite

These mites cause feathers to fall out. They burrow through the feathers shaft into the follicle. If feathers have a swollen root, it is probably Itch Mite. The feather shaft swells and then the feather is shed. Small pale spots appear on the underside of the feathers on the breast, wings, back and neck.

Cure

Dipping and dusting the loft and the birds with pesticides.

Red Mite

These mites will note be found on the pigeon when examine it. The Red Mite hides in small cracks and crannies during the day. They come out at night to feed on the blood of the pigeon. The mite causes irritation and damage through blood sucking.

Cure

Dipping and dusting the loft and the birds with pesticides.

Vitamins

Vitamin A

Promotes growth in young animals and helps with immunity from diseases. A deficiency will diminish fertility in pigeons and cause improper development of the pigeon's eggs.

Source

Vitamin A is found in Green Peas, Yellow Maize, Carrots, Green Vegetables and Cod liver oil.

Vitamin B1

Pigeons need B1 to convert carbohydrates into glycogen for storage in the liver. B1 helps with appetite and healthy nervous, digestive systems. Vitamin B1 also promotes build the skeleton.

Source

B1 is found in Wheat, Green Peas, and Brown Rice.

Vitamin B2

Essential for the metabolism of proteins, Carbohydrates, and fats. It is necessary for adequate functioning of the nervous system and the proper development of the embryo.

Source

B2 is found in the same foods as B1. Wheat, Green Peas, Brown Rice. Adequate amounts contained in most cereals and legumes.

Vitamin B6 & B10

Vitamin B6 (Pyridoxine) regulates metabolism of the nerves and liver. It is also important for growth.

B10 (Folic Acid)

Prevents anemia. Pigeons deficient have leg cramps and tier quickly.

Source

B6 occur in all kinds of grains, yeast and bran. B10 found in grains, yeast

Vitamin B12

This vitamin is very important. This is the only vitamin that contains the metal cobalt. B12 is essential for formation of red blood cells. It is necessary for development of eggs and for growth in the first few weeks in a pigeon's life.

Source

B12 is of animal origin and is not found in normal pigeon food. However it is contained in chick rearing food and in black dirt.

Vitamin C

Vitamin C helps produce antibodies to fight pathogenic organisms. It works in relationship with vitamin A.

Source

Pigeons produce vitamin C in the liver. Vitamin C is not required in their food. Deficiency in the vitamin A will diminish the production of vitamin C.

Vitamin D

Vitamin D assist in taking calcium and phosphorus from the intestines and into the blood stream, where they can be used for building the skeleton.

Deficiency of d will promote a deficiency of these two minerals. Vitamin D helps balance the ratio of calcium and phosphorous.

Source

The pigeon's body produces vitamin D from ultraviolet rays from sun light. Supplement diet with cod liver oil. Another source that contains D is barley. Supplements also can be used.

Vitamin E

Called the fertility vitamin. Deficiency in this vitamin will render both sexes infertile.

Source

The germ of cereal grain and legumes are rich in vitamin E. green peas, wheat, and maize.

Vitamin K

Necessary for regulation of blood clotting. Deficiency will slow coagulation.

Source

Adequate green in the diet will prevent any deficiency.

Symptoms

Air Sacs, Inflammation

Possible Causes: Infectious Catarrh, Ornithosis, Mycoplasmosis

Balance Disorders

Possible Causes: <u>Salmonellosis</u>, <u>Paramyxovirus infection</u>, <u>Streptococcus</u> <u>infection</u>

Breast, Blueish

Possible Cause: Oxygen deficit caused by a respiratory disease or by insufficient loft ventilation; feed mixture too high in protein.

Breath, Short of

Possible Cause: Salmonellosis, Ornithosis, Mycoplasmosis

Breathing Rapid

Possible Cause: Aspergillosis

Canker

Possible Cause: Trichomoniasis

Condition, General, Impaired

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis, Young Bird Sickness

Conjunctivitis, Bilateral

Possible Cause: Infectious Catarrh, Ornithosis, Haemophilus Catarrh

Conjunctivitis, Unilateral Possible Cause: <u>Ornithosis</u>

Consumption, Complete Possible Cause: Worm Infestation, Tuberculosis

Crop, Mucosa, Swollen Possible Cause: Young Bird Sickness, Trichomoniasis

Crop, Puffy
Possible Cause: Young Bird Sickness

Crop, Sour, Water Filled Possible Cause: <u>Young Bird Sickness</u>, <u>Candida Infection</u>

Debility

Possible Cause: <u>Coccidiosis</u>, <u>E.coli Infection</u>, <u>Hexamitiasis</u>, <u>Staphylococcus</u> <u>Infection</u>

Diarrhea, Bloody

Possible Cause: <u>Hexamitiasis</u>, <u>Salmonellosis</u>, <u>E.coli Infection</u>, <u>Worm</u> <u>Infestation</u>, <u>Coccidiosis</u>

Diarrhea, Greenish

Possible Cause: Salmonellosis

Diarrhea, Malodorous

Possible Cause: Hexamitiasis, Coccidiosis

Diarrhea, Muco-aqueous

Possible Cause: <u>Infectious Catarrh</u>, <u>Ornithosis</u>, <u>Hexamitiasis</u>, <u>Salmonellosis</u>, <u>E.coli Infection</u>, <u>Coccidiosis</u>

Diarrhea, Rice Water-like

Possible Cause: <u>Hexamitiasis</u>

Disorder, Systemic

Possible Cause: E.coli Infection, Streptococcus infection

Down, Moulting, Cessation

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Droppings, Formed but in puddles

Possible Cause: Paramyxovirus infection

Droppings, Mucoid in yellow-green puddles

Possible Cause: Young Bird Sickness

Droppings, Soft

Possible Cause: Coccidiosis, Worm Infestation, Stress

Droppings, Sourish-Smelling

Possible Cause: Trichomoniasis

Droppings, Wet

Possible Cause: Infectious Catarrh, Ornithosis, Stress, Trichomoniasis, Hexamitiasis, Coccidiosis

Eggs, Poor Hatchability

Possible Cause: Salmonellosis

Eggs, Thin Shells

Possible Cause: Calcium, Vitamin D or Phosphorous deficit

Elbow Joint, Thickening

Possible Cause: Salmonellosis

Emaciation, acute

Possible Cause: E.coli Infection, Young Bird Sickness, Coccidiosis

Enteritis, acute Possible Cause: Hexamitiasis, Salmonellosis, E.coli Infection, Coccidiosis

Eye Discharge, Watery Possible Cause: <u>Salmonellosis, E.coli Infection, Mycoplasmosis</u>

Eyelid, Swollen Possible Cause: <u>Infectious Catarrh</u>, <u>Trichomoniasis</u>

Eyelids, Severe Swelling

Possible Cause: Haemophilus Catarrh

Feather Formation, Inadequate

Possible Cause: Ectoparasites, Nutritional Deficit

Feather Pulling

Possible Cause: Ectoparasites, Protein or Calcium Deficit, Candida Infection

Feathers, Loss of

Possible Cause: <u>Ectoparasites</u> (particularly body mange mites)

Feed Intake, Increased

Possible Cause: Worm Infestation

Feed Intake, Reduced

Possible Cause: Trichomoniasis, Hexamitiasis, E.coli Infection, Coccidiosis

Fly, Reluctance

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis, Young Bird Sickness

Growth Retardation, Nestlings

Possible Cause: Trichomoniasis, Salmonellosis, Candida Infection

Joint, Swollen

Possible Cause: Salmonellosis, Gout

Lacrimal Sac, Bulging

Possible Cause: Haemophilus Catarrh

Laryngeal Deposits, Whitish-Yellow

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Leg Joint, Thickening

Possible Cause: Salmonellosis, Gout

Leg, Paralysis Possible Cause: <u>Salmonellosis</u>, <u>Paramyxovirus infection</u>

Listlessness

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis, Coccidiosis

Mortality, Nestlings

Possible Cause: Streptococcus infection, Trichomoniasis

Movements, Twisting

Possible Cause: Paramyxovirus infection, Salmonellosis

Mucus (beak), stringy

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Nasal discharge, aqueouse

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Nasal discharge, mucopurulent

Possible Cause: <u>Infectious Catarrh</u>, <u>Ornithosis</u>, <u>Trichomoniasis</u>, <u>Mycoplasmosis</u>

Nasal discharge, yellowish brown

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Neck, torsion of the

Possible Cause: <u>Streptococcus infection</u>, <u>Salmonellosis</u>, <u>Paramyxovirus</u> <u>infection</u>

Nervousness

Possible Cause: Ectoparasites

Newcastle Disease

Possible Cause: Paramyxovirus infection

Nictitating membrane, inflammation

Possible Cause: Haemophilus Catarrh

Nose scratching

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Nose wattle, grey

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Overturning

Possible Cause: Paramyxovirus infection

Paratyphus

Possible Cause: Salmonellosis

Performance, rapid reduction

Possible Cause: Salmonellosis, Young Bird Sickness

Performance, reduced

Possible Cause: Infectious Catarrh, Trichomoniasis, Coccidiosis

Plumage, puffed-up

Possible Cause: Coccidiosis, Worm Infestation

Plumage, rough

Possible Cause: Worm Infestation, Ectoparasites

Proliferations, scabby

Possible Cause: Pigeon Pox

Rattling

Possible Cause: <u>Infectious Catarrh</u>, <u>Ornithosis</u>, <u>Trichomoniasis</u>, <u>Mycoplasmosis</u>

Respiration, difficulty in

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis, Herpesvirus Infection

Respiratory murmurs

Possible Cause: Infectious Catarrh, Trichomoniasis, Mycoplasmosis

Restlessness

Possible Cause: Ectoparasites

Sneezing

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Throat mucosa, reddening

Possible Cause: Trichomoniasis, Young Bird Sickness, Infectious Catarrh

Throat mucosa, white to grey dots

Possible Cause: Salivary Stones

Throat mucosa, yellow dots

Possible Cause: Trichomoniasis

Throat, swelling of the mucosa

Possible Cause: Infectious Catarrh, Trichomoniasis

Timidity

Possible Cause: Paramyxovirus infection

Tongue, greenish furring

Possible Cause: Aspergillosis

Umbilical abscess, squabs Possible Cause: Trichomoniasis

Umbilical infection, squabs Possible Cause: Trichomoniasis

Vitality, reduced

Possible Cause: Trichomoniasis, Worm Infestation, Ectoparasites

Vomiting

Possible Cause: <u>Worm Infestation</u>, <u>Young Bird Sickness</u>, <u>Candida Infection</u>, <u>Poisoning</u>

Walking backwards

Possible Cause: Paramyxovirus infection

Water intake, excessive

Possible Cause: Paramyxovirus infection, Coccidiosis

Water intake, increased

Possible Cause: see Wet Droppings, Hexamitiasis, E.coli Infection

Water intake, reduced

Possible Cause: Infectious Catarrh

Weakness, nestlings

Possible Cause: Infectious Catarrh

Weight, loss of

Possible Cause: <u>Hexamitiasis</u>, <u>Worm Infestation</u>, <u>Salmonellosis</u>, <u>Trichomoniasis</u>, <u>Coccidiosis</u>

White dots (throat)

Possible Cause: Salivary Stones

Wind pipe (trachea), inflammation of

Possible Cause: Infectious Catarrh, Ornithosis, Trichomoniasis

Wing paralysis

Possible Cause: Salmonellosis

Yellow dots (throat) Possible Cause: Trichomoniasis