

Young Bird Diseases

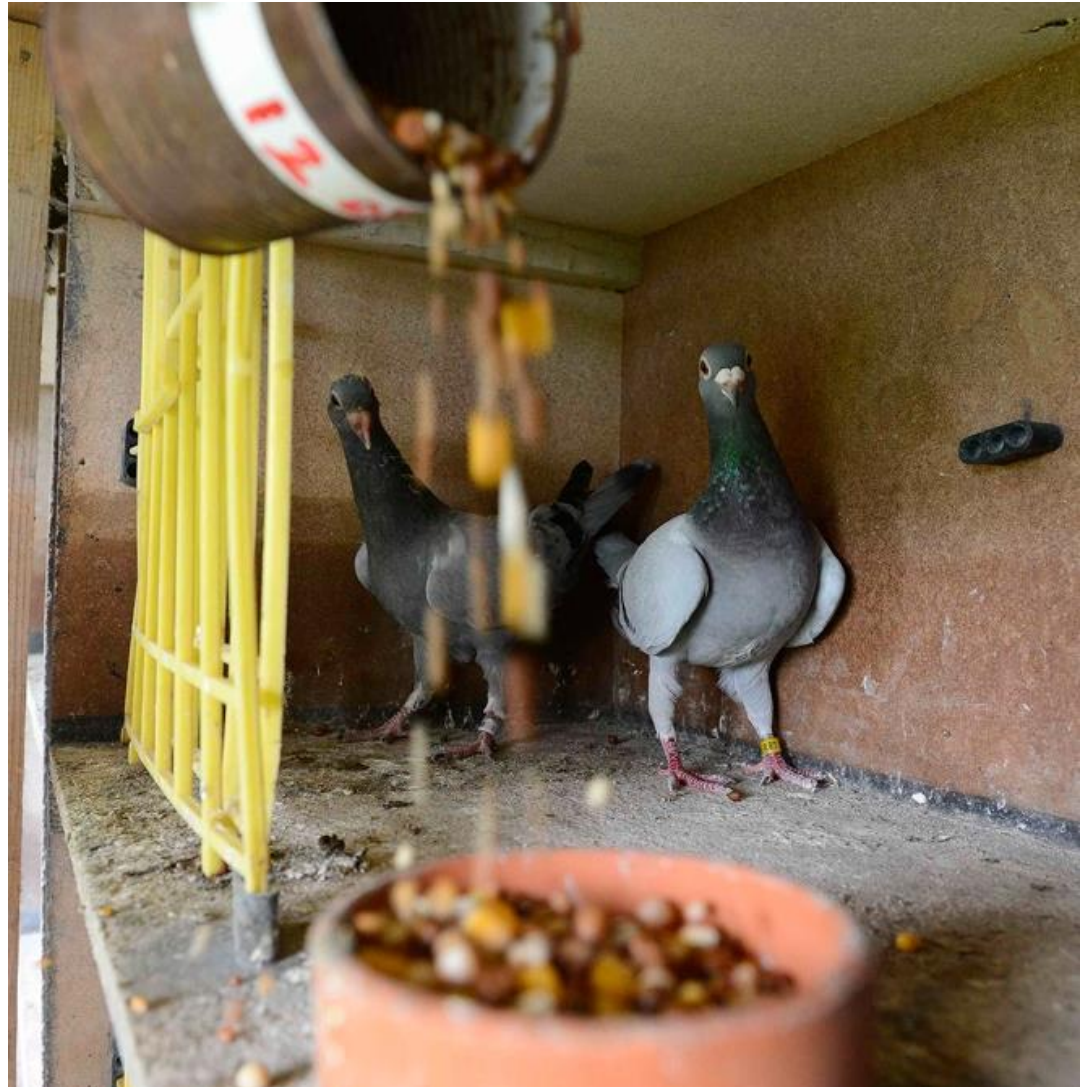
IF Convention - Long Island, NY

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Young Bird Diseases

- Adeno Virus
- Paramyxo Virus (PMV)
- Circo Virus
- Salmonella
- Herpes Virus
- Parasites
 - Worms
 - Coccidia
 - Canker



The Young Bird Immune System

- Why do young birds get infectious disease ??????
A weak immune system: Inadequate immunity
- The key to young bird health is to manage the young bird's **immune system**.
- Note that the young bird's immune capacity is very low the few (3 to 10) weeks after weaning.
- The young bird's immune system has **two** components: **Passive** and **On-Board**.

The Young Bird Immune System

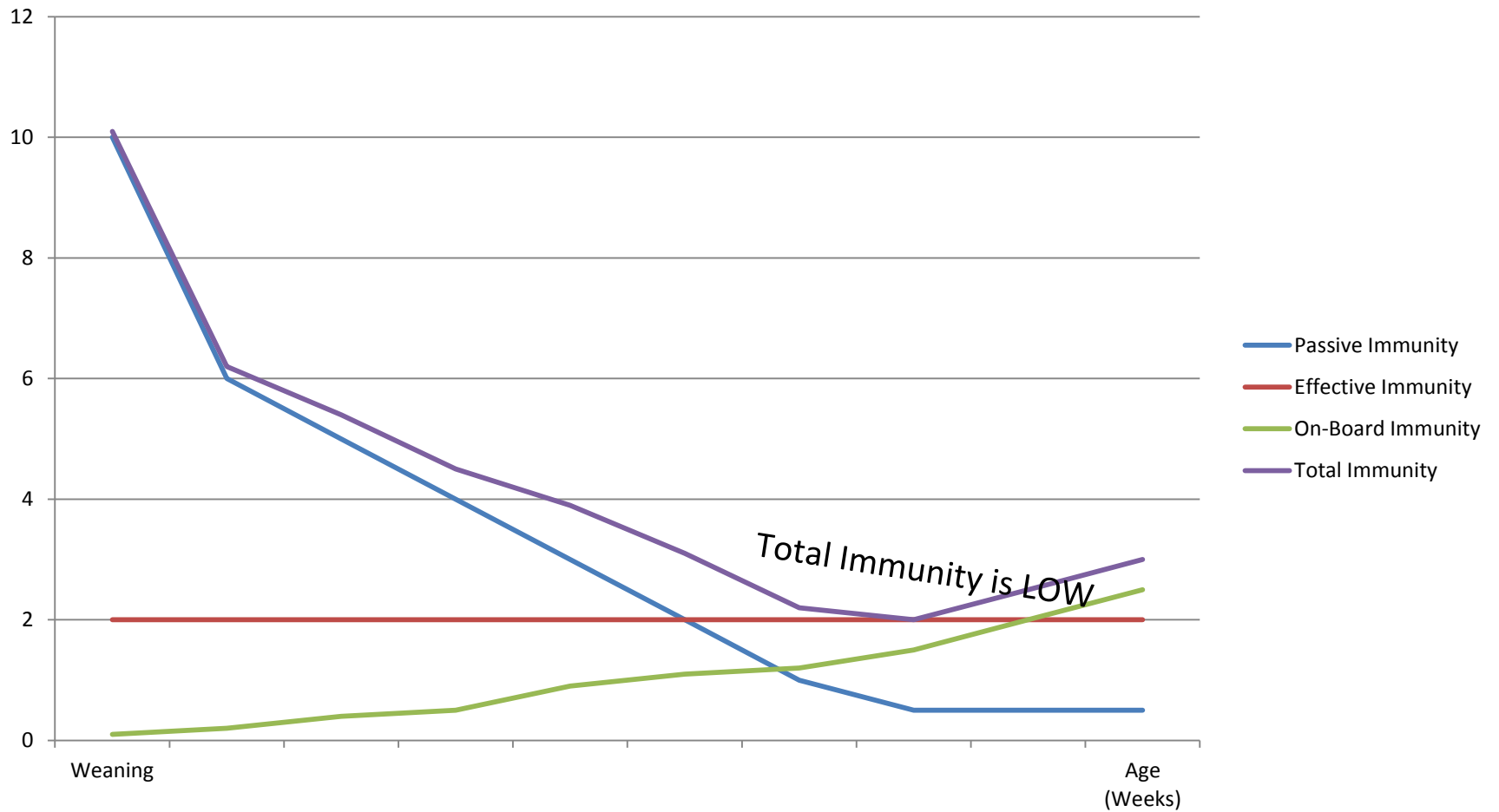
Passive (from Parents)

- Highest at weaning
- Declines/depletes as bird ages (in weeks)
- Received from Parents...
Depends on parents immune status
- Consists of Antibodies from mother (through yolk) and both (through crop milk)
- Note: No Cellular component

On-Board

- At weaning: very primitive and ineffective (lowest)
- Develops and strengthens as the bird ages
- Development is dependent on immune system stimulation (vaccination)
- Is **not fully developed** until the bird is mature

The Young Bird Immune System



Young Bird Diseases Adeno Virus

- Primarily affects digestive system (intestines)
 - Can also affect other systems (chronic in Liver)
- Birds regurgitate whole grain; also diarrhea
- Treatment: Fight dehydration - provide plenty of water with electrolytes; reduce stress
- Freeze regurgitated grain, and feed to next year's young birds
- Mix with other young birds before racing
- Often accompanied by a bacterial enteritis: E.coli, Salmonella... Treat as appropriate.

Young Bird Diseases

Paramyxo Virus (PMV)

- Vaccinate:
 - Young birds (twice) before training
 - All birds once in fall (before breeding season; annual booster)
- Virus primarily affects Kidneys and Nerves
- During an active break, support kidneys with plenty of water w electrolytes (fight dehydrat)
- Birds will recover; possible nerve damage
- Carried by feral pigeons - always exposed

Young Bird Diseases - Circo Virus

- Primarily attacks the young bird's immune system: Bursa, Thymus, Spleen, Bone Marrow
- Depletes lymphocytes; weakens immunity
- Bird develops a variety of secondary infections
- Attacks fast rapidly dividing cells (young birds)
- Latent commensal in parents (no disease)
- Parental immunity tends to wane as time goes on; passive immunity passed to babies drops.
- Tends to recur in cycles of a few years
- Affected birds will recover immune capacity
- Histo: Botryoid Basophilic inclusions in bursal B-cells and Mφ.

Young Bird Diseases - **Salmonella**

- A widespread bacteria – Exposure quite likely
- Numerous carriers: Rodents, Reptiles, Fish
- Subtle sources: Rodent damaged Feed, Litter
- Symptoms: Joints (swollen), digestive and/or reproductive problems, pale/cloudy eye...
- Goes into hidden places in the bird: joint, eye
- Prevention: Vaccine KM-1; twice a year
- Treatment: Antibiotics (get a sensitivity), must have good tissue penetration.

Young Bird Diseases - Parasites

- Young birds are very susceptible to parasites; symptoms: weight loss; going light; poor performance (lack stamina, slow), dull plumage.
- Determine worm and coccidia parasite load by fecal floatation at your local Vet.
- Treatments are only effective at certain stages in the parasites' life cycle; hence, several treatments, 3 weeks apart, are often necessary.
- Parasites cannot be completely eliminated; only reduced to minimal levels.

Young Bird Diseases - Parasites

- Fecal – Oral Transmission: Worm eggs, Coccidia ...
 - Can live in the litter, water, environment, etc.
 - Can tolerate heat, cold, moisture, dryness, etc.
 - Resistant to disinfectants: Not killed by chlorox or other disinfectants.
 - Intermediate host (bug, worm) in some cases
- Treatments are only effective at certain stages in the parasites' life cycle; hence, several treatments, 3 weeks apart, are often necessary.
- Parasites cannot be completely eliminated; only reduced to minimal levels.

Parasites - Worms

- Numerous types: Round worms, Capillaria,...
- Treat at 3 to 4 week intervals with:
 - Fenbendazole: Caution - **Toxic** at high doses
 - Ivermectin(1%): 3 – 5 drops in the mouth
 - Thiabendazole,
 - Levamisole,
- In chronic cases, larvae migrate into other tissues outside intestines, causing damage.

Parasites - Coccidia

- Protozoan parasite of the intestine
- Short life cycle: Builds up rapidly
- Can be quite devastating, debilitating
- Fecal Oral transmission
- Treatment:
 - Sulfa Medications (Sulmet, Albon, et al.), medication is liquid (mixes easily in water).
 - Several other medications also available.



Parasites - Canker

- Flagellated Protozoan: Trichomonas, Hexamitis
- Fecal-oral transmission, often in water
- Symptoms: Mouth/Throat – Yellow, caseous plaque in mouth; mouth sore, hurts; bird swallows a lot, stops eating, may drink more.
 - Liver: raised, yellow ‘bulls eye’ lesions throughout
 - Other locations: Hard yellow caseous plugs.
- Treatment: Metronidazole, Dimetridazole (CA)
- Test: OSOM Trichomonas Rapid Test oral swab

Young Bird Diseases - Herpes Virus

- Latent in adults; many birds carry it, and intermittently shed the virus
- Young birds easily pick up the virus at the low point in their immunity if left in with adults
- To avoid: Separate age classes; get young birds out of the breeding pen as soon as weaned
- Symptoms: Purulent pseudo-membrane in mouth; sticky, milky mucus in trachea; eye lids
- Treatment: Supportive care; mouth is extremely sore and painful

Young Bird Diseases

- To reduce young bird diseases:
 - Wean young birds at 30 to 35 days (separate)
 - Vaccinate parents before breeding season
 - Vaccinate young birds after breeding season, and before they are mixed with other (feral) pigeons
 - Minimize stress: crowding, environment, training
 - Think in terms of the young bird's immune system
 - Treat bacterial infections and parasites as needed

Health Maintenance Program – Spring Breeding

- June – (after breeding and Old Bird racing) - Vaccinate EVERY bird for Salmonella, Paramyxovirus (PMV), possibly Pox.
- July – (before moult and YB racing) - Repeat Salmonella, and PMV in Young Birds and unvaccinated Old Birds (Booster).
 - Check young birds for canker (Throat Swab), and worms (Cloacal Swab or Fecal Float)
 - Treat as necessary
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- December – (after all racing; before breeding)-Vaccinate every bird for Salmonella; vaccinate any birds unvaccinated for PMV
 - Check breeders, racing team, feeders for canker (Throat Swab), and worms (Cloacal Swab or Fecal Float)
 - Treat as necessary
 - When vaccinating, avoid breeding, training, racing and moult.