Obesity and weight problems are becoming more common in pet rabbits. This is primarily due to improper diet and too little exercise. Many of the health problems associated with obesity can be very serious, chronic, and ultimately fatal. They can be very painful for the rabbit, and greatly decrease his quality of life. Learn more about these health problems so you can better understand the importance of good nutrition and husbandry.

**Fly strike**

**What is fly strike?**
Fly strike occurs when flies lay their eggs on an animal, usually around the anal area, and the eggs hatch into maggots, which start to invade the flesh. Fly strike occurs when the rabbit cannot clean herself, usually because she cannot reach the anal area because of arthritis or obesity. Cecotropes and fecal material can then accumulate in the area.

**What are the signs of fly strike?**
Maggots are seen around a wound or the anal area.

**How is fly strike treated?**
The rabbit may be sedated or anesthetized, the area clipped, and cleaned and the maggots removed. Topical antibiotics are applied, and depending upon the severity, oral antibiotics may need to be administered. The area must be left clean, and the predisposing cause for the condition corrected.

**Pododermatitis**

**What is pododermatitis?**
Pododermatitis is also referred to as "bumblefoot" and "sore hocks," and usually affects the bottom of the hind feet and hocks (the lower part of the back leg that touches the ground when the animal is sitting). It is more common in overweight rabbits.

**What are the signs of pododermatitis?**
Animals with pododermatitis may start favoring one of their feet or appear lame and reluctant to walk. There may be loss of hair on the affected foot, thickening of the skin, swelling, redness, and sometimes open, draining areas or scabs. Some animals may become depressed and not eat.

**How is pododermatitis treated?**
For mild cases (slight swelling and redness), simply changing the environment and diet of the animal may be all that is needed. This may include providing:

- A smoother floor
- Softer and thicker bedding
- Dry surfaces
- Increased cleanliness
- Increased vitamin C for guinea pigs
- Fewer calories to overweight animals

For any foot problem that is more severe, veterinary attention is needed. Radiographs (x-rays) may be taken to determine if there is any bone infection. The animal will be placed on antibiotics and pain relievers, if indicated. Surgery may be necessary to remove any dead or dying tissue. The feet may need to be repeatedly soaked and bandaged with topical dressings. The predisposing cause for the condition needs to be corrected.

**Urinary sludge and bladder stones**

**What is urinary sludge, and what are bladder stones?**
Rabbits can excrete high levels of calcium in the urine, in the form of calcium carbonate. In large amounts, this can cause the urine to become thick, white and difficult to pass. This condition is often referred to as urinary or bladder sludge.

Bladder stones, also called urinary calculi, are formed when calcium carbonate forms individual microscopic crystals. Over time, these crystals unite and small grains of sand are formed. Once these first grains are present, additional precipitation forms on their surface and the tiny specks are gradually built into stones that sometimes reach over an inch in diameter.

Rabbits that are overweight are more prone to both of these conditions.

**What are the signs of urinary sludge and bladder stones?**

- Frequent urination. Urinating more frequently than usual and often outside the normal toilet area. Sometimes a rabbit may dribble urine, and the hindquarters may be continually damp with urine.
- Straining to urinate. The rabbit will take a long time to pass a small amount of urine. This should be considered an
emergency, because the urinary system may be blocked.

- Sludge in the urine. The urine will appear thick and white. When the urine dries, a large amount of a grainy white material will be left (small amounts can be normal).
- Blood in the urine. Normal rabbit urine is light yellow to a dark orange, depending upon the diet. Blood in the urine may cause it to be red.
- Loss of appetite. A blockage of the urinary tract can cause pain, and as a result the rabbit will act depressed and not eat. This should also be considered an emergency.

What is the treatment of urinary sludge and bladder stones? The treatment will depend upon the severity of the condition. If there are no stones and only sludge, the rabbit may be anesthetized, and the bladder catheterized and flushed. Pain relievers are often prescribed as well as a vitamin C supplement and/or cranberry tablets to acidify the urine and help the urinary tract heal. If stones are present, they may need to be removed surgically. Regular follow-up examinations should be performed.

In addition, husbandry changes will need to be made, which include:

- Increasing water consumption by flavoring the water with unsweetened juices.
- Reducing or eliminating pellets from the diet. They are very high in calcium.
- Switching from alfalfa hay, which is high in calcium, to a grass hay such as timothy.
- Feeding more green leafy vegetables.
- Reducing the number of calories if the rabbit is overweight.
- Increasing exercise, which will result in increased water consumption and overall better health.

NOTE: These diet changes must be done slowly to acclimate the rabbit to the new foods.

Any predisposing causes for the condition should be corrected.

Pregnancy toxemia

What is pregnancy toxemia? Pregnancy toxemia occurs when breakdown products of fat accumulate in the blood. This condition most often occurs during the last week of pregnancy, but can also occur after birth and in rabbits experiencing false pregnancy. It is usually due to improper nutrition and/or stress.

What are the signs of pregnancy toxemia? Signs may include weakness, depression, loss of appetite, incoordination, convulsions, abortion, and coma. Death may occur within a few hours after the signs are first noted.

What is the treatment of pregnancy toxemia? There is no consistently effective treatment, and death often results. Generally supportive care is given, which includes keeping the rabbit warm and giving intravenous fluids. If the rabbit becomes stable, she may be fed with a stomach tube.

Gastrointestinal stasis and ileus

What is gastrointestinal ileus? Gastrointestinal ileus or GIT stasis is the medical term for the disorder that some call "hairballs" (trichobezoar). Hair in the rabbit's stomach is a natural and common occurrence. Hairballs occur when the digestive tract is not functioning properly. This commonly occurs when a poor diet is fed, especially one low in fiber, and the animal already has another illness or is under stress.

What are the signs of gastrointestinal stasis? The most common signs of gastric stasis include:

- Loss of appetite for 2-7 days
- Reduced number of fecal pellets (and those that are passed are smaller than normal or may contain hair); some rabbits may have diarrhea
- Possible weight loss
- A hunched over appearance
- Teeth grinding, indicating pain
- Depression after several days
- Lethargy; ultimately the rabbit may die if not treated

How is gastrointestinal stasis treated? Most rabbits with gastric stasis/ileus respond to treatment consisting of:

- Keeping the rabbit warm
- Intravenous or subcutaneous fluids to correct dehydration
- Force feeding
• Medications such as metoclopramide or cisapride to stimulate the digestive tract
• Providing access to hay and fresh greens
• Vitamin B supplements
• Pain relievers, if necessary
• Increasing exercise
• Feeding cecotropes from a healthy rabbit
• Abdominal massage
• Antibiotics may be given

Predisposing causes of the problem should be corrected.

Urine scald

What is urine scald?
Urine scald occurs when the rabbit's skin, especially around the urethra (urinary opening to the outside) and between the hind legs remains damp with urine. This causes skin irritation, similar to diaper rash in children. It may occur as a result of obesity, arthritis, or urinary tract disease.

What are the signs of urine scald?
Skin around the urethra, between the hind legs, and sometimes the hock is inflamed and red. The hair in the area is continually damp.

How is urine scald treated?
The hair is shaved from the affected area, which is then bathed with a mild soap. Topical products such as Desitin® are often applied. Underlying causes for the condition need to be treated as well. This tends to be an ongoing problem, so owners should monitor their affected rabbits closely for signs of recurrence.