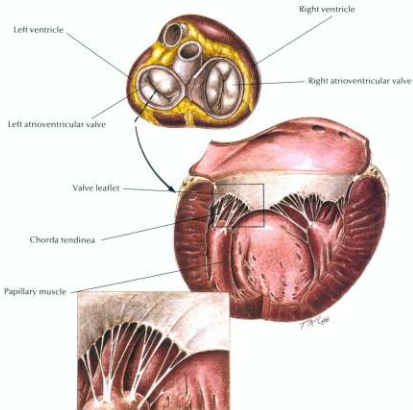


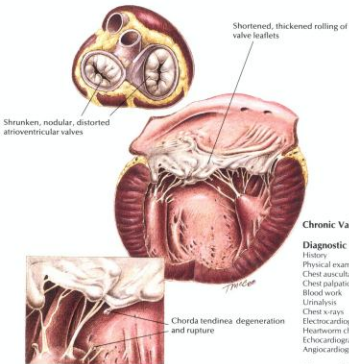


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Hill's Atlas  
of Veterinary  
Clinical Anatomy

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### Chronic Valvular Disease

#### Diagnostic Plan

History  
Physical examination  
Chest auscultation  
Chest palpation  
Blood work  
Urinalysis  
Chest x-rays  
Electrocardiography  
Heartworm check  
Echocardiography  
Angiocardiography

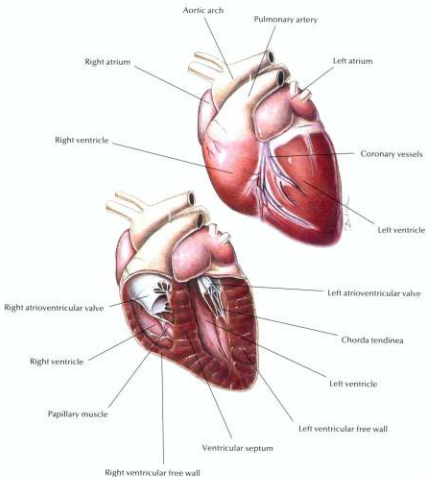
#### Therapeutic Plan

Digitalis  
Diuretics  
Drugs that dilate blood vessels  
Drugs that correct abnormal heart rhythms  
Exercise restriction

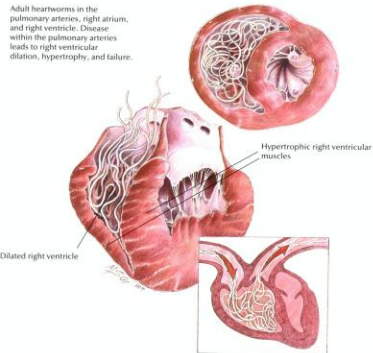
#### Dietary Plan

A mildly restricted sodium diet or a moderately restricted sodium diet  
If necessary, change to a severely restricted sodium diet

## Normal Canine Heart



Adult heartworms in the pulmonary arteries, right atrium, and right ventricle. Disease within the pulmonary arteries leads to right ventricular dilation, hypertrophy, and failure.



## Heartworm Disease

### Diagnostic Plan

History  
Physical examination  
Heartworm check  
Blood work  
Urinalysis  
Chest x-rays  
Electrocardiography  
Echocardiography

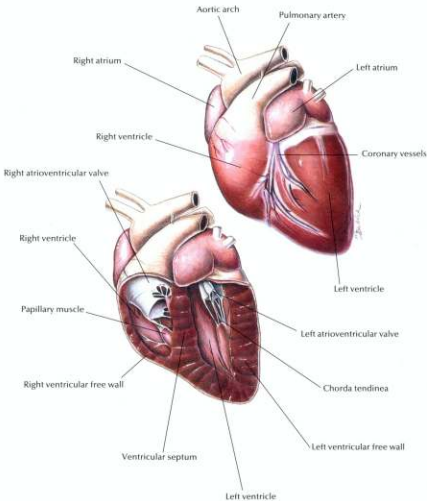
### Therapeutic Plan

Drugs to kill adult worms  
Restricted exercise  
Aspirin  
Corticosteroids  
Drugs to kill larvae in the bloodstream  
Prevention  
Surgery

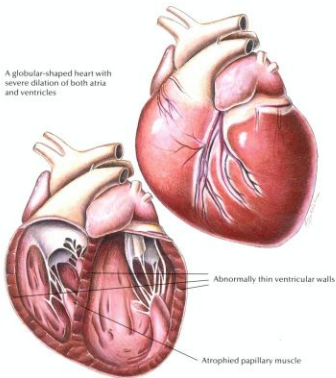
### Dietary Plan

A diet with controlled levels of protein, phosphorus, and sodium  
Consider body condition

## Normal Canine Heart



A globular-shaped heart with severe dilation of both atria and ventricles



### **Canine Dilated Cardiomyopathy**

#### **Diagnostic Plan**

History  
Physical examination  
Urinalysis  
Blood work  
Chest x-rays  
Electrocardiography  
Echocardiography  
X-rays of the heart after dye injection

#### **Therapeutic Plan**

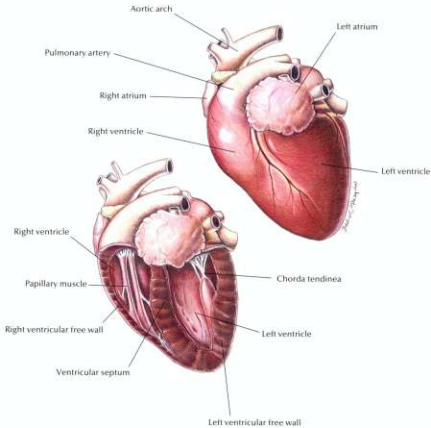
Enforced rest  
Removal of fluid from the chest and abdomen  
Diuretics  
Drugs that strengthen the heart  
Drugs that dilate blood vessels  
Bronchodilators  
Oxygen therapy

#### **Dietary Plan**

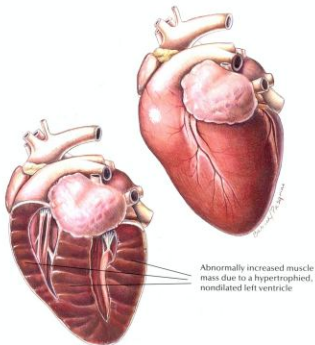
A diet that avoids excess levels of sodium

# Hill's Atlas of Veterinary Clinical Anatomy

## Normal Feline Heart







### **Feline Hypertrophic Cardiomyopathy**

#### **Diagnostic Plan**

History  
Physical examination  
Chest auscultation  
Palpation of femoral pulses and hindlimb musculature  
Blood work  
Urinalysis  
Electrocardiography  
Chest x-rays  
Echocardiography  
X-rays of the heart and abdominal blood vessels after dye injection

#### **Therapeutic Plan**

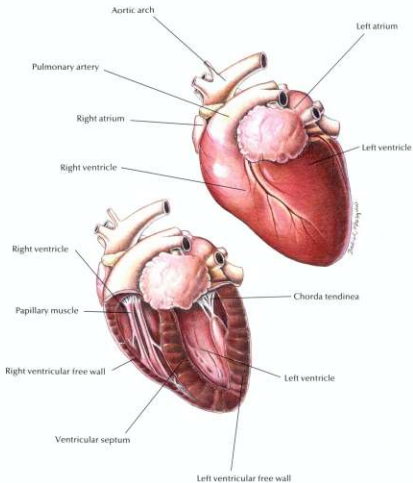
Enforced rest  
Bronchodilators  
Oxygen therapy  
Removal of fluid from the chest and abdomen  
Drugs that dilate blood vessels  
Aspirin  
Beta blockers  
Heparin  
Surgery

#### **Dietary Plan**

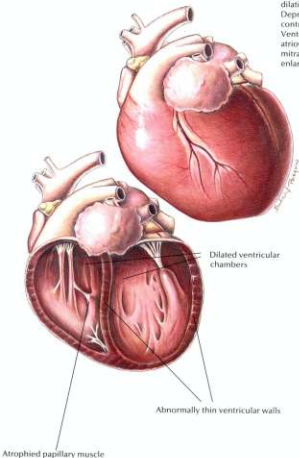
A diet that avoids excess levels of sodium

# Hill's Atlas of Veterinary Clinical Anatomy

## Normal Feline Heart



A globular heart with severe dilation of all four chambers. Depressed ventricular contractile performance occurs. Ventricular dilation distorts the atrioventricular valves leading to mitral regurgitation and atrial enlargement.



### **Feline Dilated Cardiomyopathy**

#### **Diagnostic Plan**

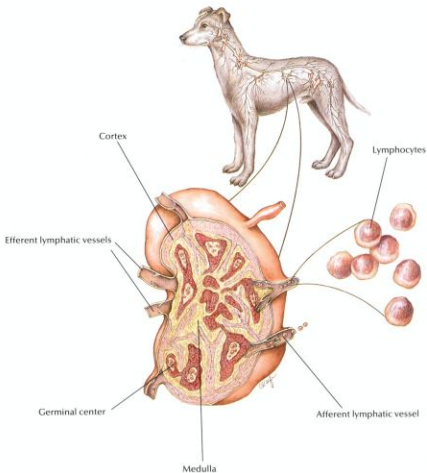
History  
Physical examination  
Chest auscultation  
Palpation of femoral pulses and hindlimb musculature  
Blood work  
Urinalysis  
Electrocardiography  
Chest x-rays  
Echocardiography  
X-rays of the heart and abdominal blood vessels after dye injection  
Plasma taurine analysis

#### **Therapeutic Plan**

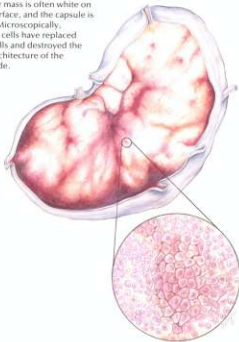
Enforced rest  
Diuretics  
Bronchodilators  
Oxygen therapy  
Removal of fluid from the chest and abdomen  
Drugs that dilate blood vessels  
Drugs that strengthen the heart  
Heparin  
Surgery

#### **Dietary Plan**

A diet that contains adequate levels of taurine and avoids excess levels of sodium



The tumor mass is often white on the cut surface, and the capsule is thinned. Microscopically, malignant cells have replaced normal cells and destroyed the normal architecture of the lymph node.

**Lymphosarcoma****Diagnostic Plan**

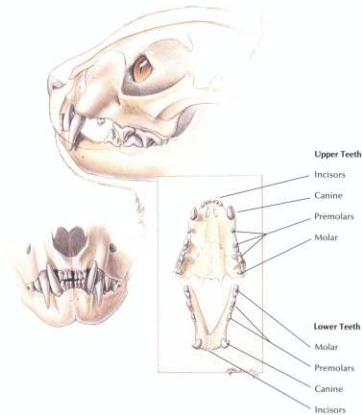
- History
- Physical examination
- Blood work
- FelV test
- X-rays
- Urinalysis
- Biopsy of tissues
- Cell studies
- Endoscopy
- Exploratory surgery
- Examinations of chest and abdominal fluid
- Bone marrow biopsy
- Cerebral spinal fluid examination

**Therapeutic Plan**

- Supportive therapy
- Chemotherapy
- Surgical excision
- Radiation

**Dietary Plan**

A diet based on individual patient evaluation including body condition and other organ system involvement or disease



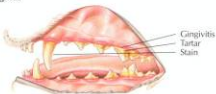
## Normal Dental Examination



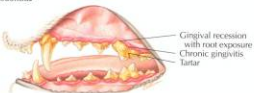
## Plaque



## Gingivitis



## Periodontitis



## Periodontal Disease

## Diagnostic Plan

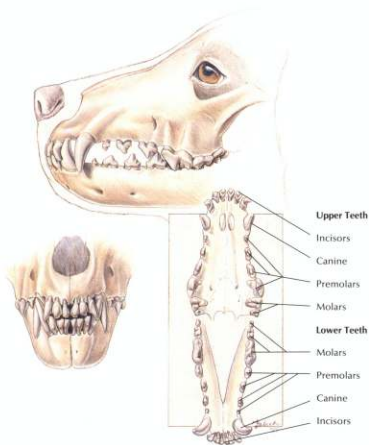
History  
Physical examination  
Oral examination

## Therapeutic Plan

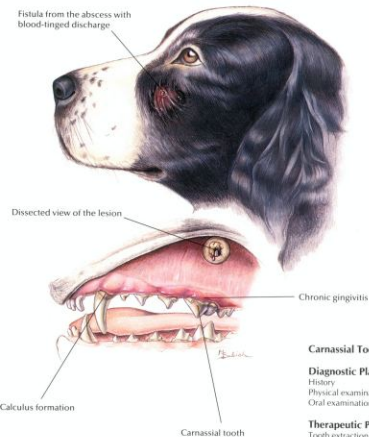
Tooth scaling above and below the gumline  
Tooth polishing  
Extraction  
Surgery  
Antibacterials  
Tooth brushing

## Dietary Plan

Postsurgery or extractions, a food with nutritional characteristics that support tissue repair. A soft food may minimize postprocedural discomfort. Long term, a food with formulation and texture that slows the accumulation of plaque and tartar.







### **Carnassial Tooth Abscess**

#### **Diagnostic Plan**

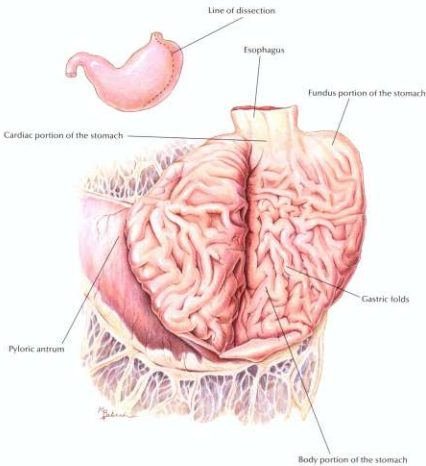
History  
Physical examination  
Oral examination

#### **Therapeutic Plan**

Tooth extraction

#### **Dietary Plan**

A diet based on overall patient evaluation including body condition and other organ system involvement  
A soft diet may minimize postsurgical pain



Diffuse redness of the mucosa  
due to active inflammation and  
hemorrhage

Gastric ulcers

## Hemorrhagic Gastritis with Ulcers

### Diagnostic Plan

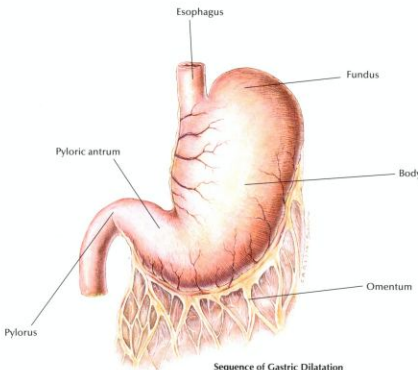
History  
Physical examination  
Blood work  
Stool check for blood  
Stool check for parasites  
Urinalysis  
X-rays of the stomach  
Endoscopy  
Gastric fluid analysis  
Gastric biopsy

### Therapeutic Plan

Nothing orally for 12 to 24 hours  
Fluid therapy  
Gastric lavage  
Antiemetic drugs  
Whole blood  
Antacids  
Drugs to inhibit gastric acid  
secretion  
Surgery

### Dietary Plan

A diet based on overall patient  
evaluation including body  
condition and other organ  
systems  
A diet with moderate to low levels  
of fat, fiber, and protein to  
minimize dietary-induced delays  
in gastric emptying  
For pets with gastritis caused by  
food allergy, a hypoallergenic diet

**Sequence of Gastric Dilatation with Torsion**

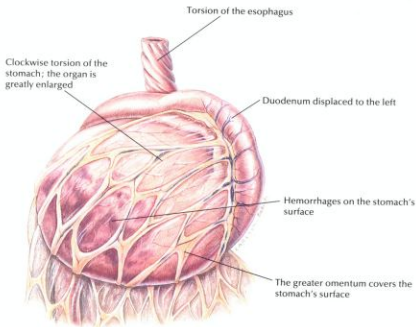
Clockwise rotation as viewed from a ventral position



The pyloric antrum is displaced downward.



The pylorus crosses the midline, passes underneath the distended proximal part of stomach, and moves upward along the left abdominal wall.



### **Gastric Dilatation with Torsion**

#### **Diagnostic Plan**

History  
Physical examination  
X-rays of the stomach  
Blood work

#### **Therapeutic Plan**

Stomach distention relief  
Shock therapy  
Surgery

#### **Dietary Plan**

A low-residue diet, fed in small portions  
Avoid excessive postprandial exercise



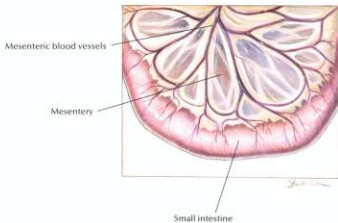
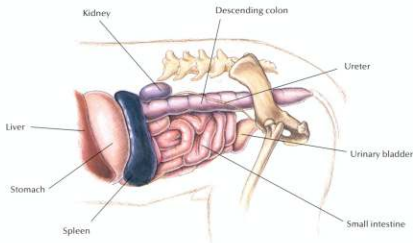
The gastric fundus moves ventrally and becomes located in the ventral abdomen.

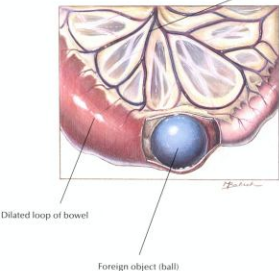
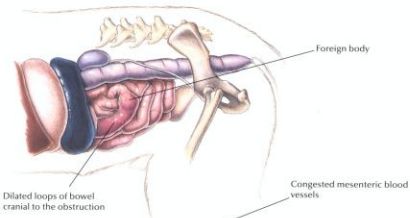


The continuing gastric dilatation displaces the greater curvature ventrally.

# Hill's Atlas of Veterinary Clinical Anatomy

## Normal Small Intestine





## Foreign Bodies

### Diagnostic Plan

History  
Physical examination  
Abdominal palpation  
Abdominal x-rays  
Upper G.I. series  
Stool analysis  
Blood tests  
Urinalysis  
Endoscopy

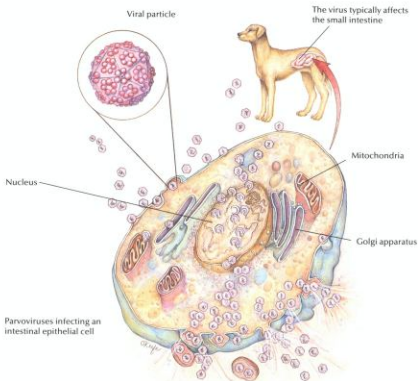
### Therapeutic Plan

Fluid therapy  
Antibacterials  
Surgery (to remove foreign bodies)  
Nothing by mouth for 24-48 hours

### Dietary Plan

Postsurgically, a low-residue diet fed in small portions  
Consider overall patient condition when determining the protein level and caloric density of the diet

# Parvoviral Enteritis



## Parvoviral Enteritis

### Diagnostic Plan

History  
Physical examination  
Stool analysis  
Blood tests  
Urinalysis  
Abdominal x-rays  
Upper G.I. series  
Endoscopy with tissue biopsy

### Therapeutic Plan

Nothing by mouth  
Fluid therapy  
Intestinal protectants  
Antibacterials

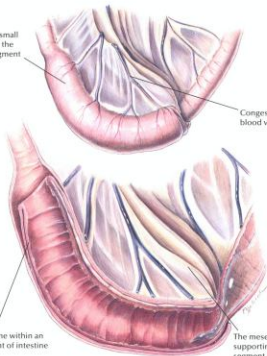
### Dietary Plan

A highly digestible diet  
Consider overall patient condition when determining the protein level and caloric density of the diet



Obstruction of the small intestine caused by the telescoping of a segment of intestine into an adjacent segment

Congested mesenteric blood vessels



A loop of intestine within an adjacent segment of intestine

The mesentery and blood vessels supporting the invaginating segment of bowel are included in the intussusception

### Intussusception

#### Diagnostic Plan

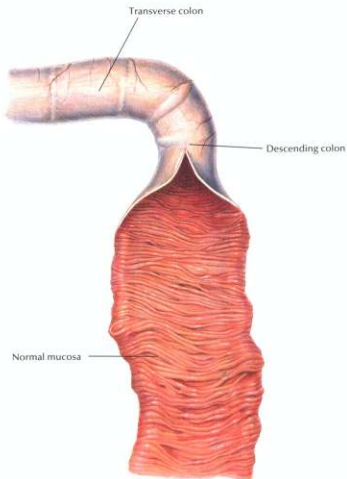
History  
Physical examination  
Abdominal palpation  
Abdominal x-rays

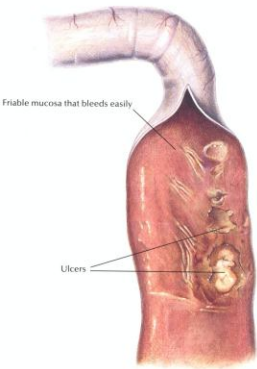
#### Therapeutic Plan

Fluid therapy  
Surgery  
Removal of the cause  
Nothing by mouth

#### Dietary Plan

Postsurgically, a low-residue diet fed in small portions  
Consider overall patient condition when determining the protein level and caloric density of the diet





### Chronic Colitis

#### Diagnostic Plan

History  
Physical examination  
Stool analysis  
Abdominal palpation  
Rectal palpation  
Stool culture  
Blood work  
Urinalysis  
X-rays of the colon  
Colonoscopy and biopsy

#### Therapeutic Plan

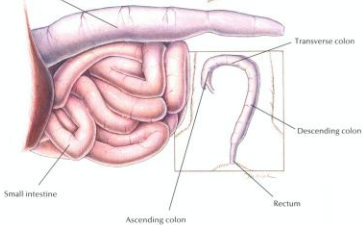
Antibacterials  
Dewormers  
Anti-inflammatory drugs

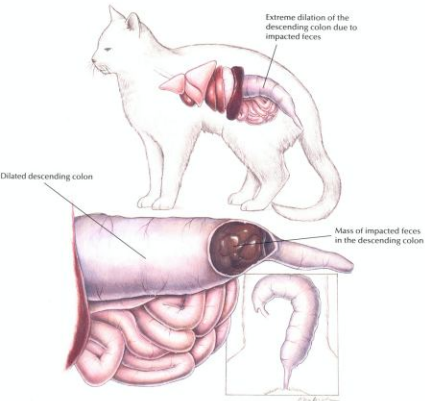
#### Dietary Plan

High-fiber diets benefit some cases of colitis.  
If a high-fiber diet is ineffective, a dietary trial using a low-residue diet is indicated.  
For a food-allergy-induced colitis, a hypoallergenic diet is indicated.



Descending colon





### Constipation/Colonic Impaction

#### Diagnostic Plan

History  
Physical examination  
Rectal palpation  
Abdominal palpation  
Abdominal x-rays

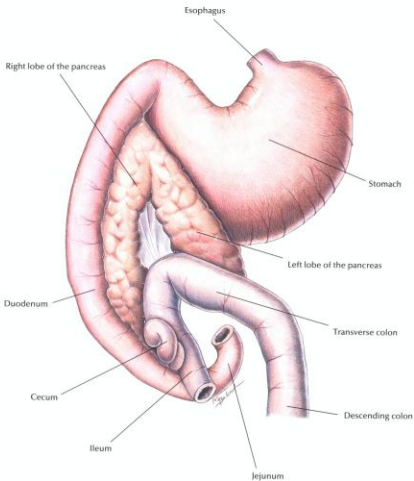
#### Therapeutic Plan

Fluid therapy  
Laxatives  
Enemas  
Manual removal of impacted stool  
Surgery  
Treat primary cause, if possible

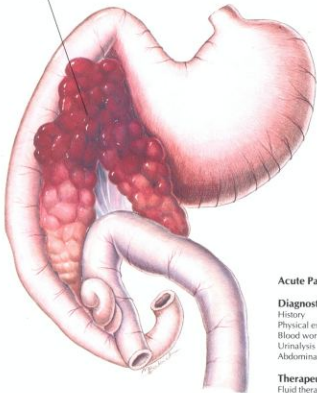
#### Dietary Plan

A moderate- to high-fiber diet  
Ensure adequate water intake

## Normal Pancreas



Swollen, inflamed pancreas with  
areas of hemorrhage



### Acute Pancreatitis

#### Diagnostic Plan

History  
Physical examination  
Blood work  
Urinalysis  
Abdominal x-rays

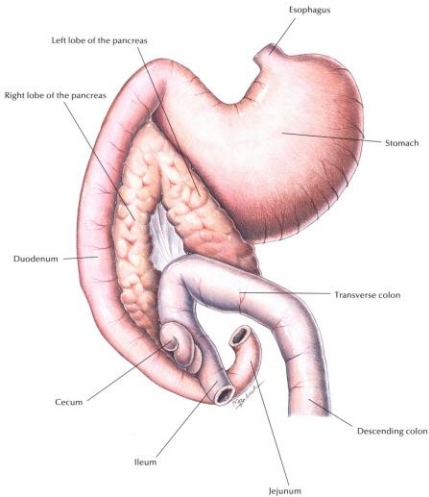
#### Therapeutic Plan

Fluid therapy  
No oral medication or food  
Antibacterials  
Drugs to suppress vomiting

#### Dietary Plan

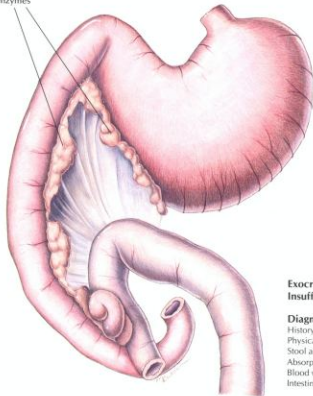
When resuming enteral nutrition,  
small portions of a diet low in fat  
and residue  
After the initial episode, manage  
hyperlipidemia, if necessary

# Normal Pancreas





Shrunken pancreatic lobes with  
reduced production of digestive  
enzymes



### **Exocrine Pancreatic Insufficiency**

#### **Diagnostic Plan**

History  
Physical examination  
Stool analysis  
Absorption tests  
Blood work  
Intestinal biopsy

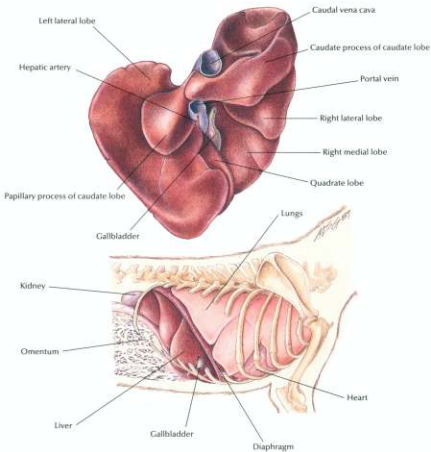
#### **Therapeutic Plan**

Pancreatic enzymes  
Medium-chain fats  
Antacids  
Drugs that inhibit acid secretion in the stomach

#### **Dietary Plan**

A highly digestible diet  
Consider overall body condition  
Feed quantities sufficient to maintain normal body weight

## Normal Liver

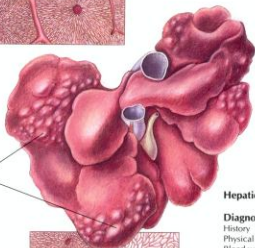


Central vein

Interlobular connective tissue



Tumors



Disruption of normal liver tissue  
by sheets of neoplastic cells

## Hepatic Neoplasia

### Diagnostic Plan

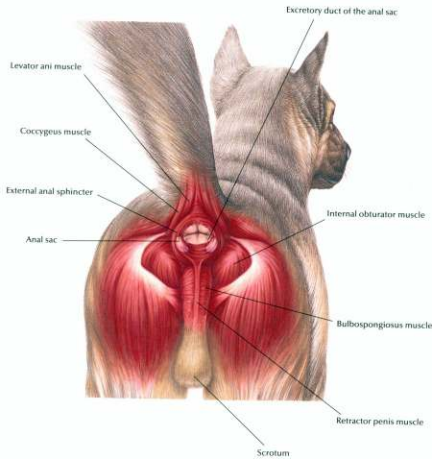
History  
Physical examination  
Blood work  
Urinalysis  
X-ray of the liver  
Ultrasound  
Liver biopsy  
Exploratory surgery

### Therapeutic Plan

Supportive care  
Chemotherapy  
Surgery

### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement. Special attention should be given to protein levels and amino-acid balance of the diet.



Enlarged, inflamed anal sac

Ruptured anal sac abscess

**Anal Sac Abscess****Diagnostic Plan**

History  
Physical examination  
Abscess culture

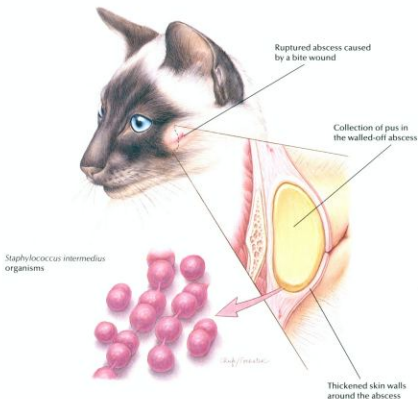
**Therapeutic Plan**

Lancing of the abscess  
Anal sac expression  
Hot soaks  
Antiseptic solutions  
Antibacterials  
Anal sac removal

**Dietary Plan**

Postsurgically, a diet adequate for tissue repair

# Skin Abscess



## Skin Abscess

### Diagnostic Plan

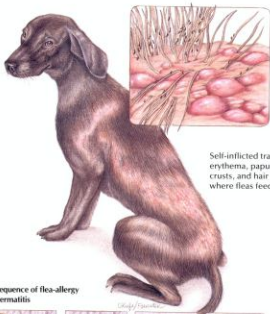
History  
Physical examination  
Abscess culture  
X-rays

### Therapeutic Plan

Hot compresses  
Abscess drainage  
Dead tissue removal  
Antibacterial therapy  
Surgery

### Dietary Plan

A diet adequate for tissue repair



Self-inflicted trauma results in erythema, papules, pustules, crusts, and hair loss in areas where fleas feed.

**Sequence of flea-allergy dermatitis**



Flea punctures skin to feed.



Flea saliva sets up an antigen-antibody reaction.



Excoriation and inflammation result from self-inflicted trauma.



Acute bacterial infection results.

**Flea-Allergy Dermatitis**

**Diagnostic Plan**

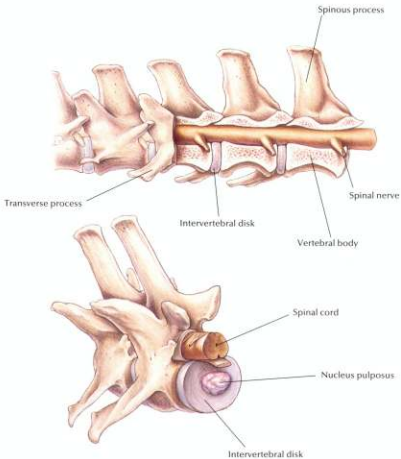
History  
Physical examination  
Detection of fleas, flea dirt, and tapeworm segments  
Intradermal skin testing

**Therapeutic Plan**

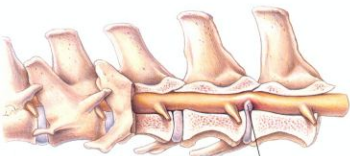
Flea control  
Corticosteroids

**Dietary Plan**

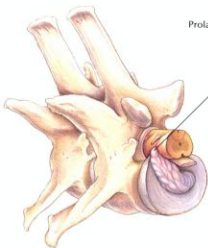
A diet adequate for tissue repair







Prolapsed intervertebral disk



## **Intervertebral Disk Disease**

### **Diagnostic Plan**

- History
- Physical examination
- Neurologic examination
- X-rays of the spine

### **Therapeutic Plan**

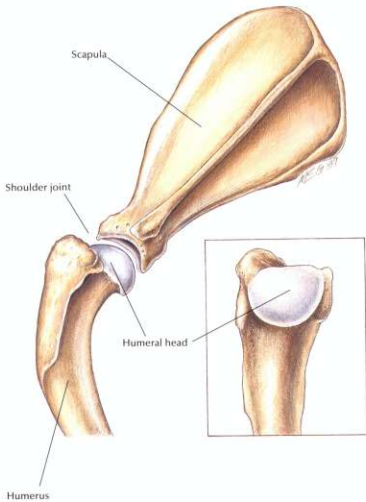
- Enforced rest
- Anti-inflammatory drugs
- Analgesics
- Muscle relaxants
- Surgery
- Physical therapy

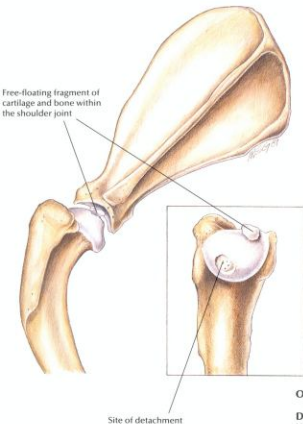
### **Dietary Plan**

Postsurgically, a diet adequate for tissue repair

If obesity is a complicating factor, restrict caloric intake so the patient reaches and maintains an ideal body weight

## Normal Shoulder



**Osteochondritis Dissecans****Diagnostic Plan**

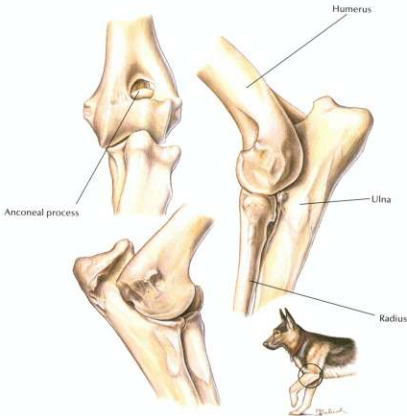
History  
Physical examination  
X-rays

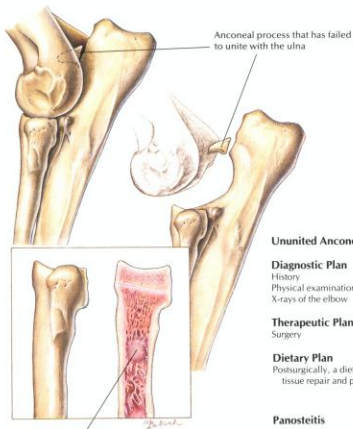
**Therapeutic Plan**

Surgery

**Dietary Plan**

Postsurgically, a diet adequate for tissue repair and patient growth  
Avoid overfeeding throughout life



**Ununited Anconeal Process****Diagnostic Plan**

History  
Physical examination  
X-rays of the elbow

**Therapeutic Plan**

Surgery

**Dietary Plan**

Postsurgically, a diet adequate for tissue repair and patient growth

**Panosteitis****Diagnostic Plan**

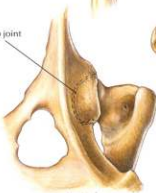
History  
Physical examination  
Palpation  
X-rays

**Therapeutic Plan**

Analgesics

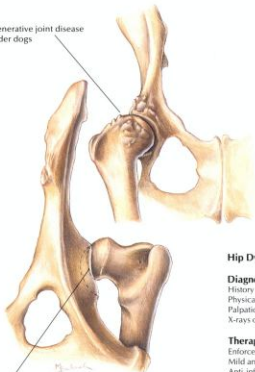
**Dietary Plan**

A diet adequate for growth  
Avoid overfeeding throughout life



# Hip Dysplasia

Degenerative joint disease  
in older dogs



Shallow hip joint with  
subluxated femoral head  
in younger dogs

## Hip Dysplasia

### Diagnostic Plan

History  
Physical examination  
Palpation of the hips  
X-rays of the hips

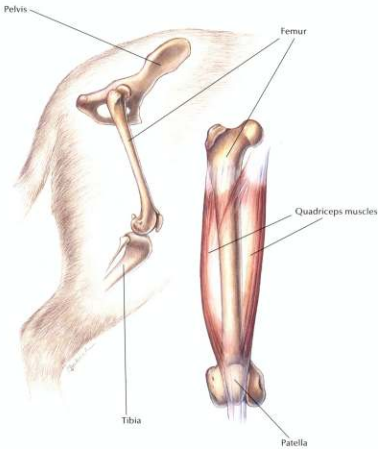
### Therapeutic Plan

Enforced rest  
Mild analgesics  
Anti-inflammatory drugs  
Surgery

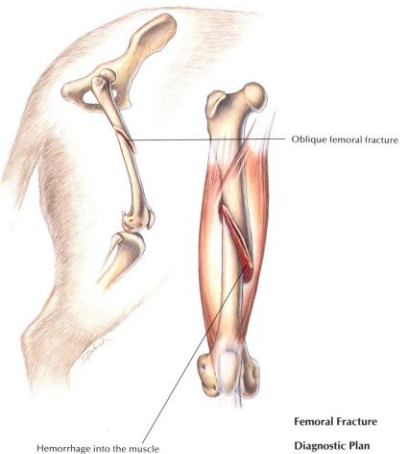
### Dietary Plan

Postsurgically, a diet adequate for tissue repair  
If obesity is a complicating factor, restrict caloric intake so the patient reaches and maintains an ideal body weight

## Normal Rear Leg







## Femoral Fracture

### Diagnostic Plan

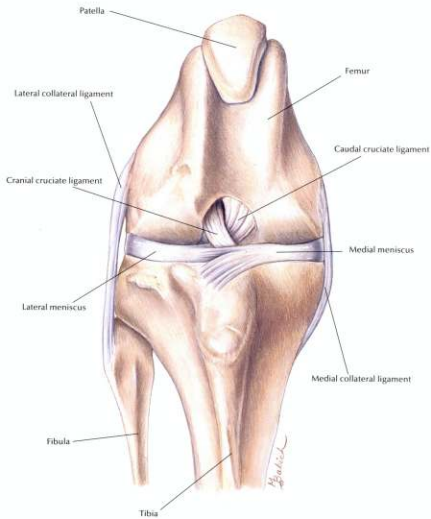
History  
Physical examination  
Palpation of the femur  
X-rays

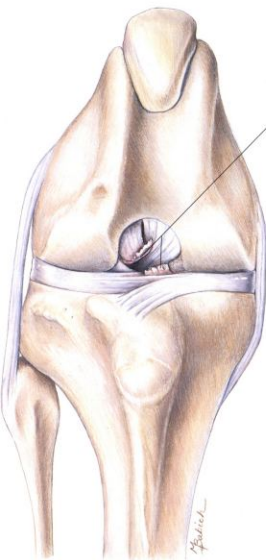
### Therapeutic Plan

Surgery

### Dietary Plan

A diet adequate for tissue repair





Ends of the ruptured cranial  
cruciate ligament

### **Ruptured Cranial Cruciate Ligament**

#### **Diagnostic Plan**

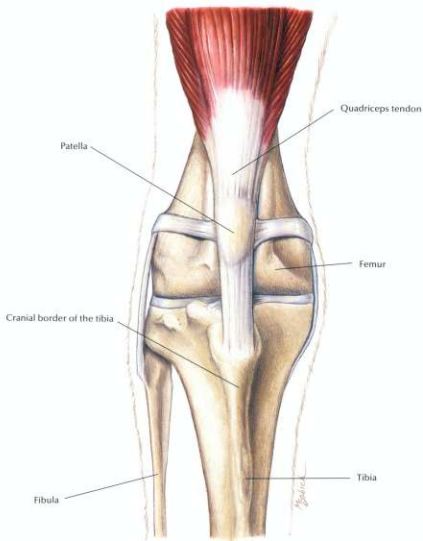
History  
Physical examination  
Palpation of the knee  
X-rays of the knee

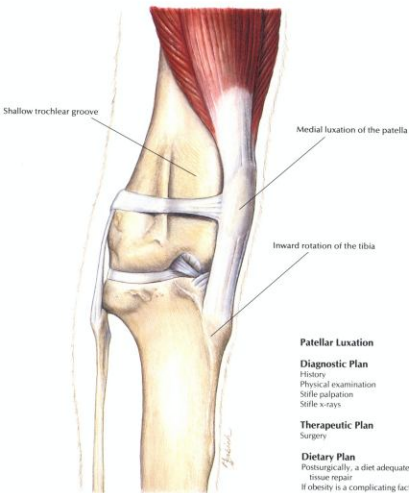
#### **Therapeutic Plan**

Enforced rest  
Analgesics  
Surgery

#### **Dietary Plan**

Postsurgically, a diet adequate for  
tissue repair  
If obesity is a complicating factor,  
restrict caloric intake so the  
patient reaches and maintains an  
ideal body weight



**Patellar Luxation****Diagnostic Plan**

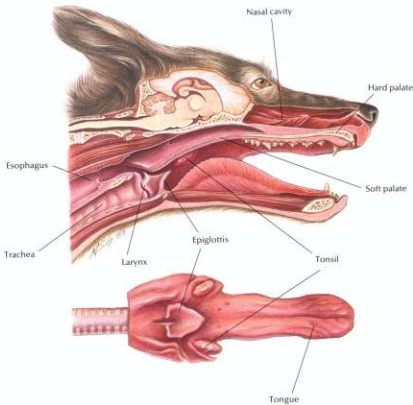
History  
Physical examination  
Stifle palpation  
Stifle x-rays

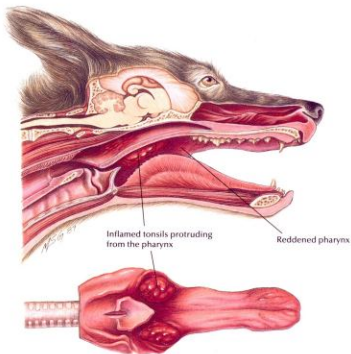
**Therapeutic Plan**

Surgery

**Dietary Plan**

Postsurgically, a diet adequate for tissue repair  
If obesity is a complicating factor, restrict caloric intake so the patient reaches and maintains an ideal body weight





## Tonsillitis

### Diagnostic Plan

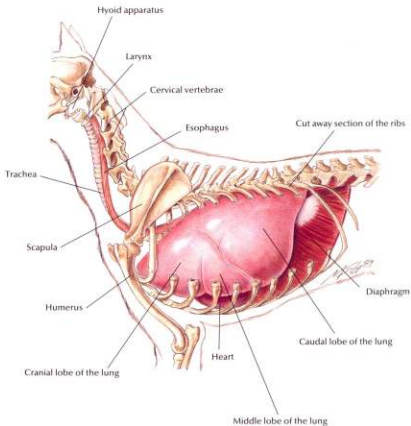
History  
Physical examination  
Examination of the tonsils  
Culture of the tonsils  
Cytologic study of tonsillar exudate  
X-rays

### Therapeutic Plan

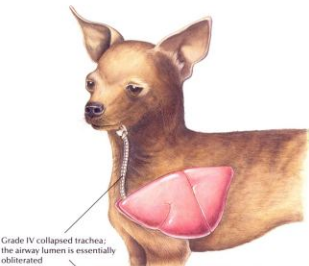
Elimination of the cause  
Antibacterials  
Tonsillectomy

### Dietary Plan

A diet based on overall patient evaluation including body condition and other organ system involvement  
A soft diet may minimize postsurgical pain







Grade IV collapsed trachea;  
the airway lumen is essentially  
obliterated



The tracheal cartilage is  
inverted dorsally and contacts  
the tracheal membrane

Normal tracheal ring

## Collapsing Trachea

### Diagnostic Plan

- History
- Physical examination
- Tracheal palpation
- Chest auscultation
- Chest x-rays
- Tracheoscopy
- Cultures of tracheal wash fluid

### Therapeutic Plan

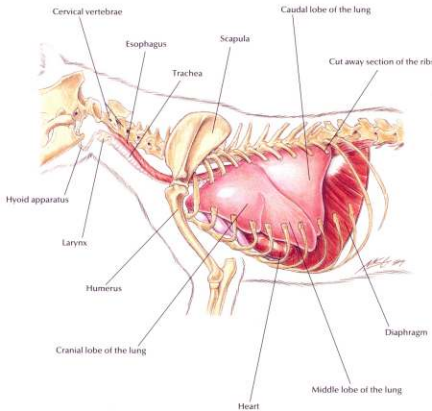
- Activity restriction
- Corticosteroids
- Steam vaporization
- Bronchodilators
- Antitussives
- Antibacterials
- Surgery

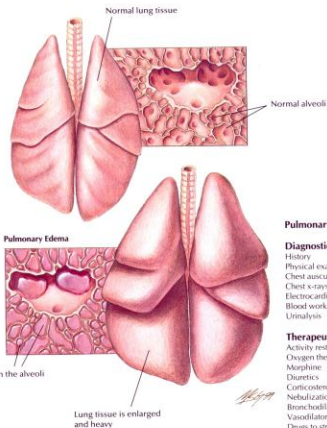
### Dietary Plan

If surgery is performed, a diet adequate for tissue repair

If obesity is a complicating factor, restrict caloric intake so the patient reaches and maintains an ideal body weight

# Normal Feline Thorax





### Pulmonary Edema

#### Diagnostic Plan

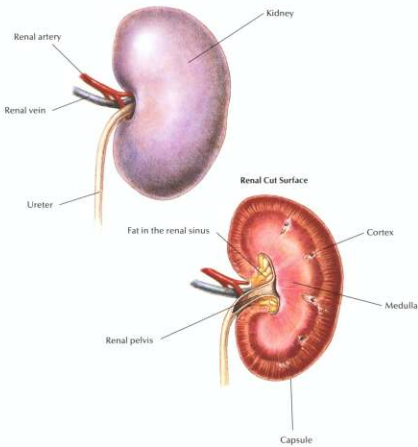
History  
Physical examination  
Chest auscultation  
Chest x-rays  
Electrocardiography  
Blood work  
Urinalysis

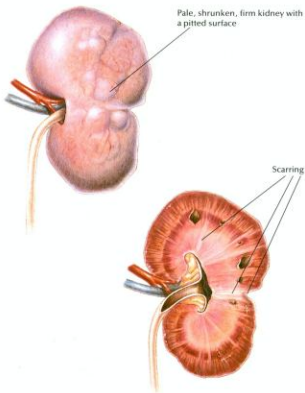
#### Therapeutic Plan

Activity restriction  
Oxygen therapy  
Morphine  
Diuretics  
Corticosteroids  
Nebulization  
Bronchodilators  
Vasodilators  
Drugs to strengthen the heart

#### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease. Also, consider sodium restriction.





## Chronic Renal Disease

### Diagnostic Plan

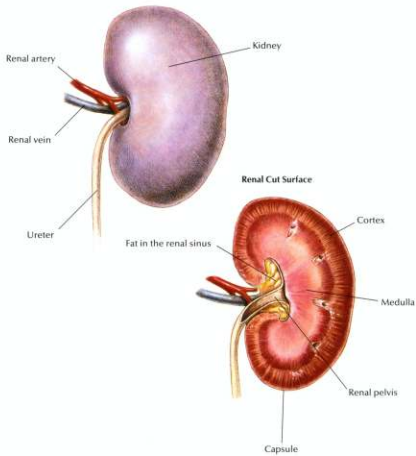
History  
Physical examination  
Abdominal palpation  
Urinalysis  
Blood work  
Blood pressure measurement  
Abdominal x-rays  
Kidney biopsy

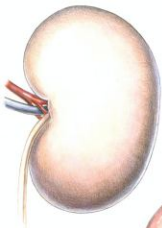
### Therapeutic Plan

Fluid therapy  
Sodium bicarbonate  
Drugs to control stomach acidity  
Phosphate binders  
Blood transfusions  
Anabolic steroids  
Peritoneal dialysis

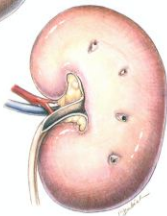
### Dietary Plan

A diet with controlled and appropriate levels of protein, phosphorus, sodium, and calories





Pale, swollen kidney



### Acute Renal Failure

#### Diagnostic Plan

- History
- Physical examination
- Abdominal palpation
- Urinalysis
- Blood work
- Abdominal x-rays
- Kidney biopsy

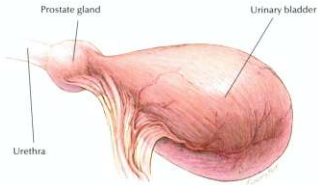
#### Therapeutic Plan

- Fluid therapy
- Diuretics
- Phosphate binders
- Sodium bicarbonate
- Drugs to control stomach acidity
- Peritoneal dialysis

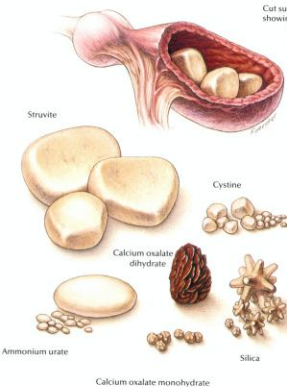
#### Dietary Plan

A diet with controlled and appropriate levels of protein, phosphorus, sodium, and calories

# Normal Urinary Bladder







Cut surface of a bladder showing struvite calculi

## Bladder Stones

### Diagnostic Plan

History  
Physical examination  
Palpation of the urethra and urinary bladder  
Urinalysis  
Urine culture  
Blood work  
X-rays of the urinary tract  
Quantitative analysis of passed bladder stones

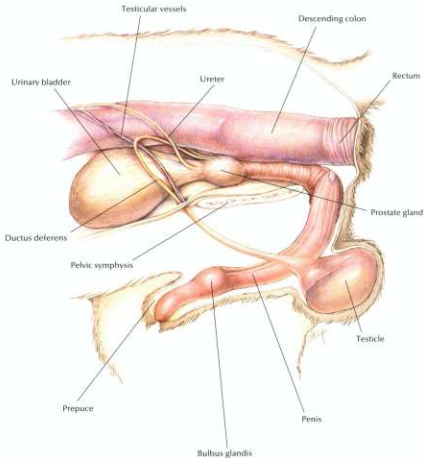
### Therapeutic Plan\*

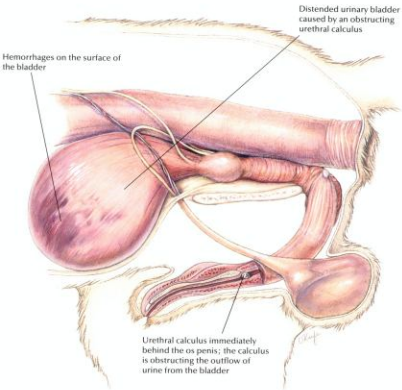
Fluid therapy  
Antibacterials  
Urease inhibitors  
Xanthine oxidase inhibitors  
Urine alkalinizers  
Thiol-containing drugs  
Surgery

\*Determined by stone type

### Dietary Plan

For dissolution, the proper calculolytic diet  
To aid in prevention or recurrence, a diet that allows the body to produce the appropriate urine pH and avoids excesses of the urolith's precursors  
If surgery is necessary, a diet adequate for tissue repair





## Canine Urethral Obstruction

### Diagnostic Plan

History  
Physical examination  
Urethral palpation  
Abdominal palpation  
X-rays of the urinary tract  
Urinalysis  
Urine culture  
Blood work  
Analysis of passed bladder stones

### Therapeutic Plan

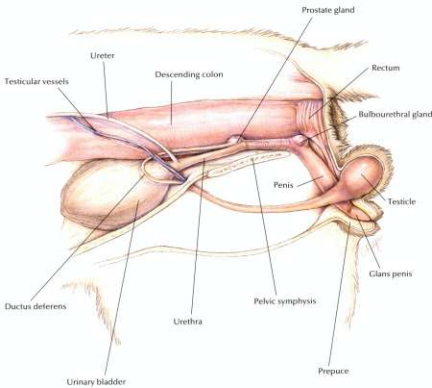
Emptying of the bladder  
Fluid therapy  
Flushing of the urethral calculi into the bladder  
Surgery

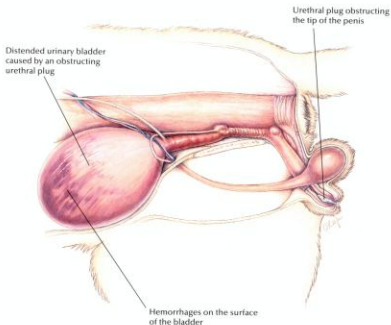
### Dietary Plan

For dissolution, the proper calculolytic diet  
To aid in prevention or recurrence, a diet that allows the body to produce the appropriate urine pH and avoids excesses of the urolith's precursors  
If surgery is necessary, a diet adequate for tissue repair

# Hill's Atlas of Veterinary Clinical Anatomy

## Normal Feline Lower Urinary System





## Feline Urologic Syndrome

### Diagnostic Plan

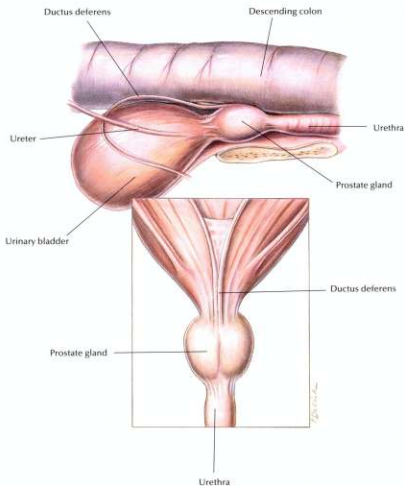
History  
Physical examination  
Abdominal palpation  
Urethral palpation  
Urinalysis  
Urine culture  
X-rays of the urinary tract  
Blood work

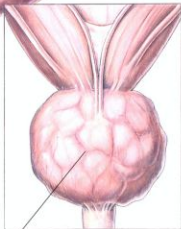
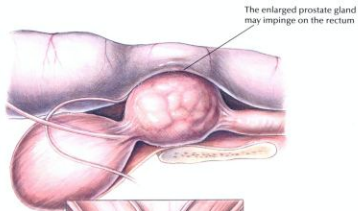
### Therapeutic Plan

Emptying of the bladder  
Fluid therapy  
Removal of the urinary obstruction

### Dietary Plan

For dissolution, the proper calculolytic diet  
To aid in prevention or recurrence, a diet that allows the body to produce the appropriate urine pH and avoids excesses of the urolith's precursors  
If surgery is necessary, a diet adequate for tissue repair





Diffuse enlargement of the prostate gland due to epithelial or glandular hyperplasia

### **Benign Prostatic Hyperplasia**

#### **Diagnostic Plan**

History  
Physical examination  
Rectal palpation  
Abdominal palpation  
X-rays  
Ultrasound  
Urinalysis  
Urine culture  
Blood work  
Prostate biopsy

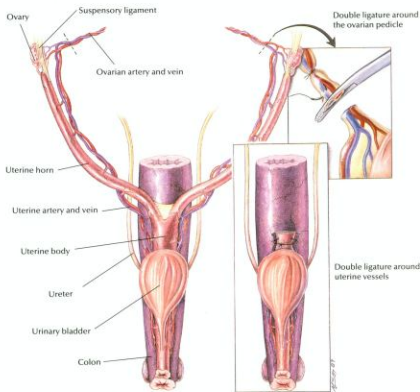
#### **Therapeutic Plan**

Emptying of the bladder  
Enemas  
Stool softeners  
Castration  
Estrogen therapy

#### **Dietary Plan**

If surgery is necessary, a diet adequate for tissue repair  
A moderate- to high-fiber diet with adequate water intake

# Ovariohysterectomy



## Ovariohysterectomy

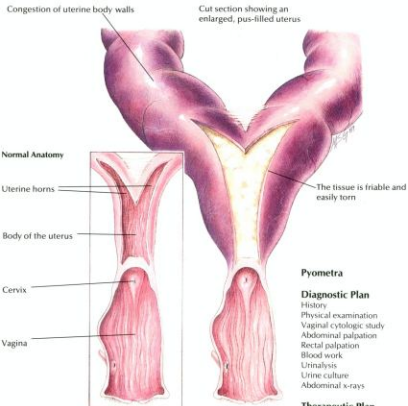
### Indications

Sterilization  
 Ovarian disease  
 Uterine disease  
 Behavioral problems  
 Vaginal hyperplasia  
 Diabetes  
 Epilepsy  
 Mammary tumor prevention

### Dietary Plan

Postsurgically, a diet adequate for tissue repair





### Pyometra

#### Diagnostic Plan

History  
Physical examination  
Vaginal cytologic study  
Abdominal palpation  
Rectal palpation  
Blood work  
Urinalysis  
Urine culture  
Abdominal x-rays

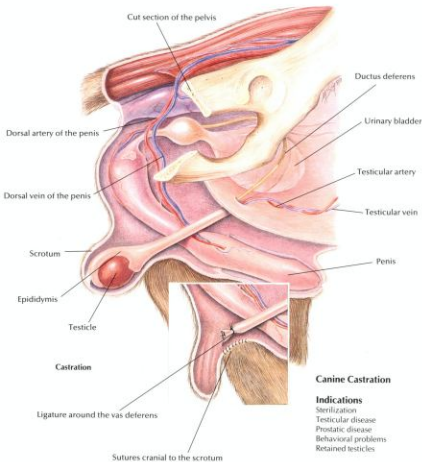
#### Therapeutic Plan

Fluid therapy  
Surgery  
Antibacterials  
Prostaglandins

#### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement  
Postsurgically, a diet adequate for tissue repair

## Canine Castration

**Canine Castration****Indications**

- Sterilization
- Testicular disease
- Prostatic disease
- Behavioral problems
- Retained testicles

**Dietary Plan**

Postsurgically, a diet adequate for tissue repair

Sertoli-cell tumor



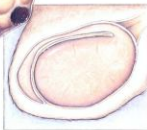
Seminoma



Leydig-cell tumor



Normal testis

**Testicular Tumors****Diagnostic Plan**

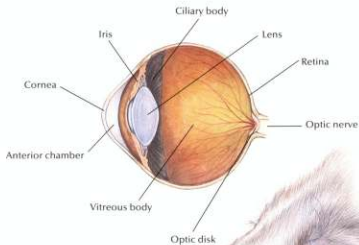
History  
Physical examination  
Testicular palpation  
X-rays of abdomen  
Biopsy

**Therapeutic Plan**

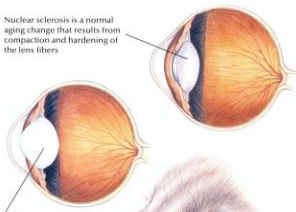
Surgery  
Chemotherapy

**Dietary Plan**

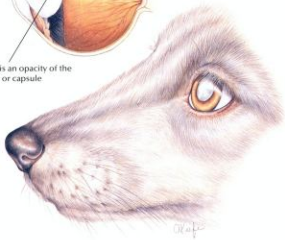
Postsurgically, a diet adequate for tissue repair  
Consider body condition; feed a diet appropriate to maintain ideal body weight



Nuclear sclerosis is a normal aging change that results from compaction and hardening of the lens fibers



A cataract is an opacity of the lens fibers or capsule



## Nuclear Sclerosis/Cataracts

### Diagnostic Plan

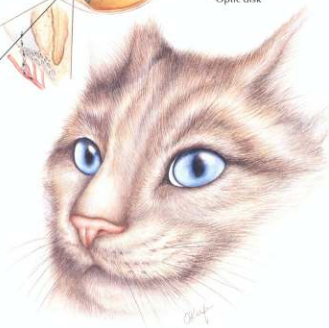
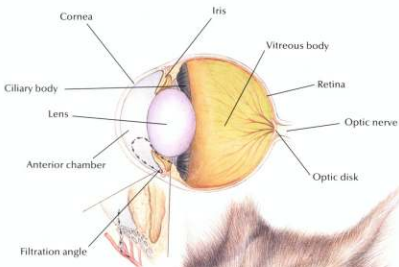
History  
Physical examination  
Ophthalmic examination  
Blood tests  
Urinalysis

### Therapeutic Plan

Surgery  
Therapy for any concurrent disease  
No therapy is necessary for nuclear sclerosis

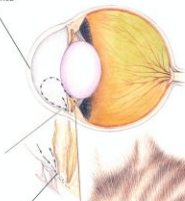
### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease



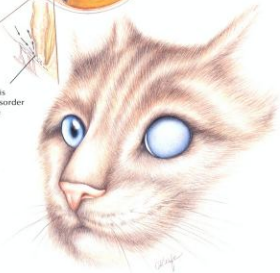
Cloudy, edematous,  
insensitive cornea

Increase in intraocular pressure



The globe is enlarged, pain  
may be present, the episcleral  
vessels are congested, and  
vision loss occurs.

Intraocular pressure is  
increased due to a disorder  
of the drainage angle



## Glaucoma

### Diagnostic Plan

History  
Physical examination  
Ocular examination  
Measurement of intraocular  
pressure

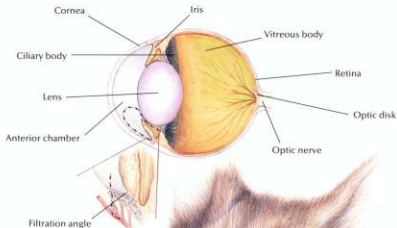
### Therapeutic Plan

Drugs that relieve intraocular  
pressure

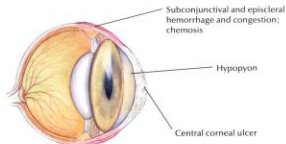
### Dietary Plan

A diet based on individual patient  
evaluation including body  
condition and other organ  
system involvement or disease

# Normal Feline Eye







## Corneal Ulceration

### Diagnostic Plan

History  
Physical examination  
Ocular examination  
Fluorescein stain  
Culture  
Cytologic examination

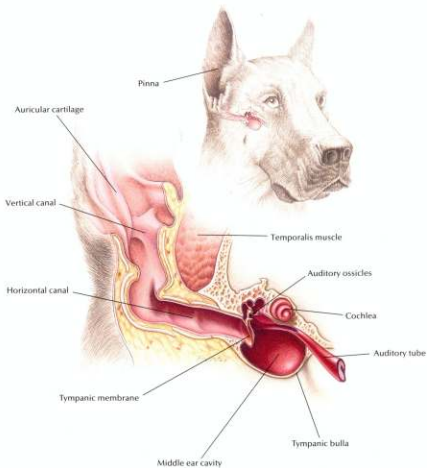
### Therapeutic Plan

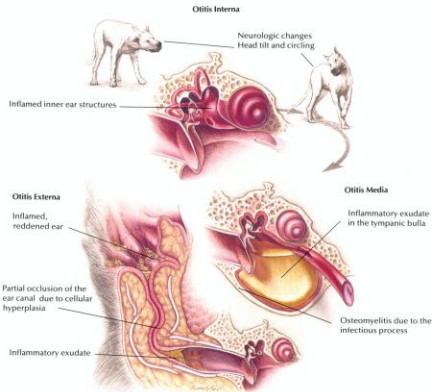
Antibacterial ointments and solutions  
Drugs that dilate the pupil  
Surgery  
Drugs to lessen the risk of pigment formation in the cornea

### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

# Normal Hearing Apparatus





### **Otitis Externa, Media, Interna**

#### **Diagnostic Plan**

History  
Physical examination  
Ear examination  
Ear cultures  
Thyroid hormone levels  
Intradermal skin testing  
X-rays  
Therapeutic trials with insecticides and hypoallergenic diets

#### **Therapeutic Plan**

Removal of ear-canal hair  
Ear cleaning  
Topical application of antibacterials/corticosteroids  
Systemic antibacterials  
Systemic corticosteroids  
Surgery

#### **Dietary Plan**

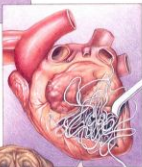
A diet based on individual patient evaluation including body condition and other organ system involvement or disease

# Heartworms

Infected mosquitoes deposit heartworm larvae into the animal's hemolymph by puncturing the animal's skin.



Mature females release microfilariae into the bloodstream where they are picked up by mosquitoes.



Young adults migrate to the pulmonary arteries and heart.

Larvae migrate to subcutaneous tissues where they mature to a young-adult stage.



## Heartworms

### Diagnostic Plan

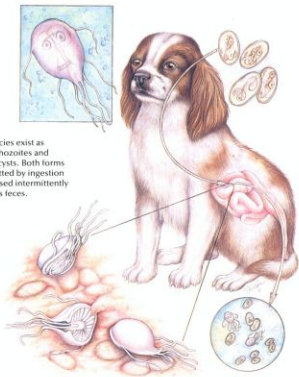
History  
Physical examination  
Heartworm check  
Chest x-rays  
Blood work  
Urinalysis

### Therapeutic Plan

Drugs to kill adult worms  
Aspirin  
Corticosteroids  
Restricted exercise  
Drugs to kill larvae in the bloodstream  
Prevention  
Surgery

### Dietary Plan

A diet with controlled levels of protein, phosphorus, and sodium  
Consider body condition



*Giardia* species exist as motile trophozoites and nonmotile cysts. Both forms are transmitted by ingestion and are passed intermittently in the host's feces.

## ***Giardia***

### **Diagnostic Plan**

History  
Physical examination  
Stool analysis  
Analysis of intestinal scrapings collected during endoscopy

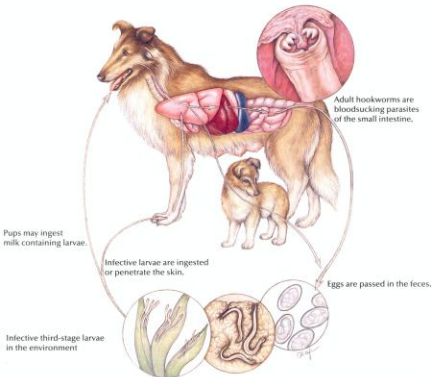
### **Therapeutic Plan**

Drugs to kill the parasite

### **Dietary Plan**

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

## Hookworms



## Hookworms

## Diagnostic Plan

History  
Physical examination  
Stool analysis  
Blood work

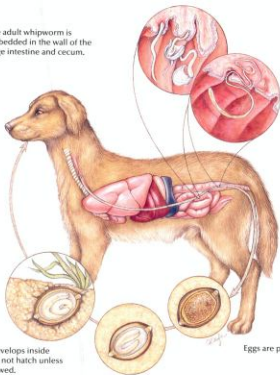
## Therapeutic Plan

Dewormers  
Blood transfusions  
Supportive therapy

## Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

The adult whipworm is embedded in the wall of the large intestine and cecum.



Infective larva develops inside the egg but does not hatch unless the egg is swallowed.

Eggs are passed in the feces.

## Whipworms

### Diagnostic Plan

History  
Physical examination  
Stool analysis  
Colonoscopy  
Therapeutic deworming

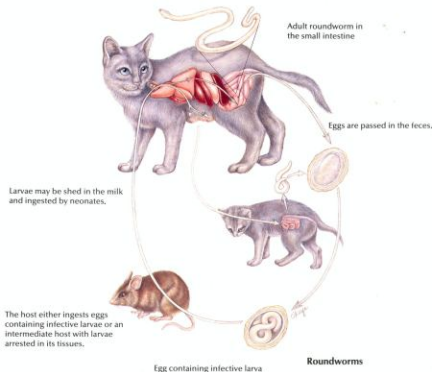
### Therapeutic Plan

Dewormers  
Supportive therapy

### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

# Roundworms



## Roundworms

### Diagnostic Plan

History  
Physical examination  
Stool analysis

### Therapeutic Plan

Dewormers  
Supportive therapy

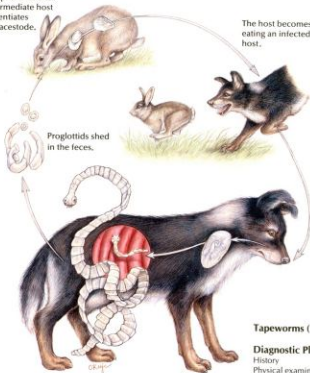
### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease



The oncosphere hatches in the intermediate host and differentiates into a metacestode.

The host becomes infected by eating an infected intermediate host.



Adult tapeworm in the small intestine

### Tapeworms (*Taenia*)

#### Diagnostic Plan

History  
Physical examination  
Detection of tapeworm segments in the stool

#### Therapeutic Plan

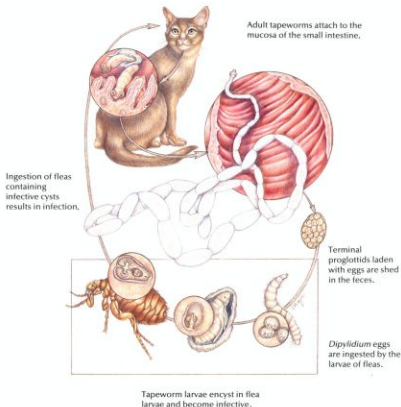
Dewormers  
Control of patient's hunting and eating habits

#### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

# Hill's Atlas of Veterinary Clinical Anatomy

## Tapeworms (*Dipylidium caninum*)



### Tapeworms (*Dipylidium caninum*)

#### Diagnostic Plan

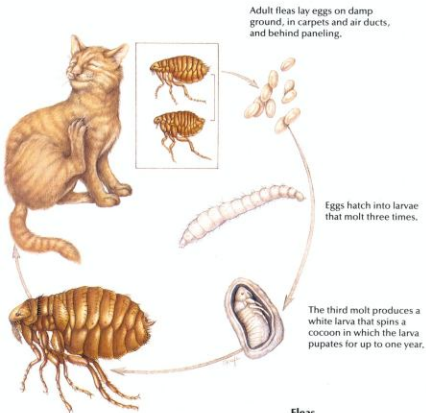
- History
- Physical examination
- Detection of tapeworm segments in the stool
- Detection of fleas or flea dirt

#### Therapeutic Plan

- Dewormers
- Flea control

#### Dietary Plan

- A diet based on individual patient evaluation including body condition and other organ system involvement or disease



### Fleas

#### Diagnostic Plan

History

Physical examination

Stool inspection for tapeworm segments

#### Therapeutic Plan

Flea control

#### Dietary Plan

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

# Ticks



Adult ticks lay thousands of eggs, which undergo two molts: larva to nymph and nymph to adult.

Larvae, nymphs, and adults feed on blood and lymph.

*Dermacentor variabilis* larvae and nymphs feed on small mammals and drop off between molts.

Adults feed on pets.

*Rhipicephalus sanguineus* larvae, nymphs, and adults all feed on pets.

## Ticks

### Diagnostic Plan

History  
Physical examination

### Therapeutic Plan

Tick removal  
Insecticide baths or dips

### Dietary Plan

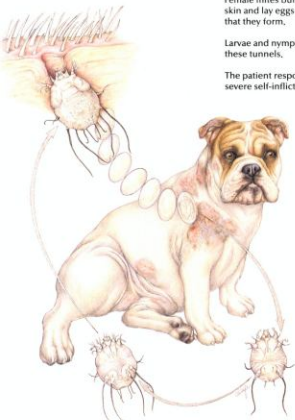
A diet based on individual patient evaluation including body condition and other organ system involvement or disease.

## *Sarcoptes*

Female mites burrow into the skin and lay eggs in the tunnels that they form.

Larvae and nymphs develop in these tunnels.

The patient response is often severe self-inflicted trauma.



### *Sarcoptes*

#### **Diagnostic Plan**

History  
Physical examination  
Skin scrapings  
Skin biopsy  
Therapeutic trial

#### **Therapeutic Plan**

Coat clipping  
Parasitocidal dips  
Antibacterials

#### **Dietary Plan**

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

*Demodex*

*Demodex* is part of the normal skin fauna and is usually present in small numbers in healthy animals.

The entire life cycle is spent on the host in the hair follicles or sebaceous glands.



Adult *Demodex* mite

***Demodex*****Diagnostic Plan**

History  
Physical examination  
Skin scrapings  
Skin biopsy  
Skin culture

**Therapeutic Plan**

Topical keratolytic agents  
Antibacterials  
Topical drugs to kill the mite

**Dietary Plan**

A diet adequate for tissue repair  
A diet based on individual patient evaluation including body condition and other organ system involvement or disease



These mites live in keratin on the skin's surface and feed on tissue fluids.

The entire life cycle is thought to occur on the host.

### *Cheyletiella*

#### **Diagnostic Plan**

- History
- Physical examination
- Skin scrapings
- Skin biopsy
- Acetate tape impressions
- Direct visualization of the parasite

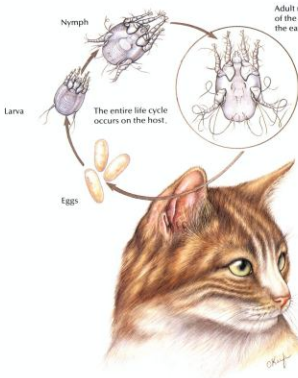
#### **Therapeutic Plan**

- Parasitocidal dips

#### **Dietary Plan**

A diet based on individual patient evaluation including body condition and other organ system involvement or disease

# Ear Mites



## Ear Mites

### Diagnostic Plan

History  
Physical examination  
Ear examination  
Microscopic examination of ear canal exudate

### Therapeutic Plan

Ear canal cleaning  
Drugs to kill the mites  
Surgical repair of aural hematomas  
Antibacterials, if needed

### Dietary Plan

A diet adequate for tissue repair  
A diet based on individual patient evaluation including body condition and other organ system involvement or disease