1) MASTITIS

An inflammation of one or more quarters of the udder usually caused by bacterial infection. The teats of cows are exposed to pathogens which penetrate the teat duct and establish an infection in one or more quarters within the udder.

The course of an infection varies, most commonly it persists for weeks or months in a mild form which is not detected by the stockman (ie. subclinical mastitis). With some pathogens, typically E coli, the infection is frequently more acute and there is a general endotoxaemia with raised body temperature, loss of appetite and the cow may die unless supportive therapy is given.

TREATMENT: When clinical mastitis occurs the effective therapy is a course of antibiotic infusions through the teat duct. These nearly always remedy the clinical disease and often eliminate the bacterial infection. Infections may spontaneously recover but most persist to be eliminated eventually by antibiotic therapy or when the cow is culled.

The susceptibility of cows varies considerably and new infections are most common in older cows in early lactation, at the start of the dry period and when the management is poor. Mastitis cannot be eradicated nor controlled by vaccination or the use of antibiotics alone but it can be reduced to low levels by good cattle management and a planned use of antibiotic treatment.

2) <u>UDDER EDEMA</u>

Swelling of the udder. Although it occurs to some degree in most cows at calving time, heifers calving for the first time are especially prone to having udder edema. Fluid accumulates between skin and glandular tissue, as well as in the gland. Severe edema can strain supportive structures of the udder. It is often caused by an imbalance of hydrostatic and osmotic pressures, increasing fluid flow out of the capillaries into the interstitial spaces. This may occur because of damage to the capillary walls or obstruction of the lymphatic system.

TREATMENT: Massage udder in an upwards direction after milking to promote circulation of fluids. Diuretics are used to speed up water removal and in severe cases, cortiocsteroids.

3) Abscess of the udder

Commonly occurs secondary to traumatic wounds. Can be caused by infection of a hematoma, chronic mastitis or supramammary lymphadenitis. Accumulation of pus.

TREATMENT: Lancing; cutting open the abscess and draining the pus.

4) Lacteiferous calculi (milk stones)

The accumulation of lime salts of milk over a point of crystallization. If the size is relatively smaller than the teat canal they can be freely movable while larger in diameter can obstruct the lumen of the teat canal.

TREATMENT: Small calculi are extracted via manipulation during milking. Larger calculi are crushed by special forceps or enlarging the opening at the end of the teat by cutting through the sphincter of the teat canal.

5) Hematoma of the udder

Common in pendulous udder. Contusion and rupture of a subcutaneous blood vessel. Sudden onset of fluctuency.

TREATMENT: A small hematoma can't be opened immediately. Only after a week then remove the blood clot and paint the cavity with tincture of iodine. Pack cavity tightly to prevent further bleeding. With a large hematoma, in front of the udder should not be opened until the blood is clotted usually after 10 days then preced as before.

6) Teat fistula (milk fistula)

An opening in the wall of the teat connecting the exterior to the present existing channel. The teat Canal has a persistent outflow of milk. Size variation; some may be tiny and difficult to locate while the larger ones, mucous membranes can be seen.

TREATMENT: Debride wound edges and dust site with antibiotic powder. Siphon milk every now and then for 2 to 3 days. Intramammary infusion of terramycine udder ointment to guard against mastitis.

7) Contracted sphincter or teat orifice "hard milker"

Congenital or acquired (trauma to the end of the teat) results in a small stream of milk and a stenotic teat orifice from prolonged milking time. Resulting in trauma to the teat due to attempts to obtain more rapidly by strenuous methods.

TREATMENT: Anesthesia into the teat canal. Orifice should be cleansed, antiseptic applied and orifice enlarged. Enlargement is achieved by inserting a lichty teat knife ringed teat slittr or stoll teat bistoury. The opening in the sphincter is maintained by inserting a Larson teat tube and leaving it in place for 5-7 days. Milking is accomplished by removing the cap of the tube

8) Occlusion of the teat orifice

Congenital; the teat fills with deposits of milk at the time of lactation. Acquired; trauma at the teat orifice results in healing with occlusion.

TREATMENT: Under local anesthetic a hypodermic needle is inserted where the opening should be located into the teat canal until the milk flows out. The needle is withdrawn and enlargement is the same as for a Contracted sphincter.

9) Enlarged teat orifice "free milker" or leaker

Resulting from a relaxed or traumatised sphincter. Milk leaks from the teat at times other than milking and results in milk loss .

TREATMENT: Injecting minute amounts of sterile mineral oil or lugol's solution around the orifice to reduce the size to desired one. May have to be done more than once to obtain the optimal size for milk flow. If it is over corrected it results in stenosis

10) Supernumarary glands

Seen in multiparous animals. Present anywhere on the udder. Frequently seen posterior to the last two normally positioned teats. These additional teats may or may not have functional glandular tissues. If it does have a functional glandular tissue, if not milked there will be atrophy. These additional teats are too close to normally placed teats and cause problems when milking.

TREATMENT: Amputate in young heifers before the gland becomes active.

11) Hyperkeratosis

Overproduction of keratin at the teat end. It may be due to excessive vacuum, overmilking or to an environmental problem (e.g. cold).

TREATMENT: Teat condition should be improved with genetics.

12) Absence of the udder

Rare. Seen in cases of hermaphrodism.

13) Absence of the teat