

**III) Self-directed and  
environment directed  
abnormal behaviour in :**

**1) Self-directed abnormal  
behaviour in :**

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**A) equine**

# A) equine

1. Self mutilation
2. Sucking and eating solid objects
3. Eating litter or bedding
4. Geophagia
5. Coprophagia
6. Throwing the food out of the manger
7. Tearing cloths
8. Hyperphagia
9. polydipsia

# 1-Self-mutilation

It is the self-injury through severe (vigorous) body friction, flank biting, side biting or severe rubbing of the neck crest.

It occurs most commonly in stallions than in mares.



## **Causes:**

- 1-Chronic confinement and isolation.
- 2-Lack of social partner or structure.
- 3- any pathological lesions (parasitism or pain)

## **Harmful effects:**

Injuries, damage and wounds in the skin and coat.

## **Remedy:**

1-avoid the cause:

Freedom of animal movement.

Provision of stable or social partner.

Treatment of the pathological lesions

2-Give a tranquilizers to terminate an episode.

3-Application of muzzle where there is no feeding.

## 2-Sucking and eating solid objects

Recently weaned foals will often suck and lick the walls and bars of their pens.

Abnormal eating and chewing of wood is representative to this behaviour.

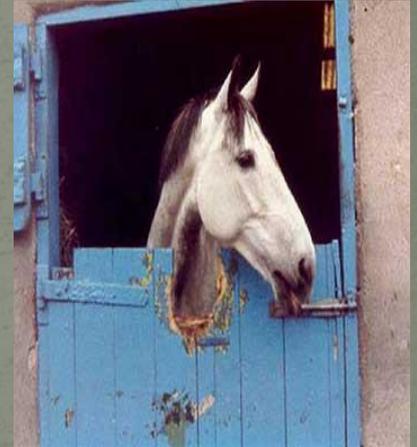
Horse licking wall



Horse licking wooden bar.



Wood chewing horse.



## **Causes:**

- 1-Chronic confinement.
- 2-Lack of roughage in the diet.
- 3-Associating wood-eating horses.

## **Harmful effects:**

- 1-Serious intestinal obstruction.
- 2-Injuries and damage to the mouth.
- 3-Excessive wear of the teeth.
- 4-Destruction of wooden fences , partitions and doors.

## **Remedy:**

### **1- avoid the cause:**

- Access to extensive pasture.
- Supplying the animal with the roughage.

- 2-Painting of the wooden surface by creosote.

## 3-Eating litter or bedding

- It is eating of the bedding materials even after it has become soiled with fecal matter, so it represents as a deprived appetite.
- An under worked horse in loose-box is more likely to eat his bedding, than one in full work, tied up at night in stall

## Causes:

- 1-Unbalanced rations and deficiency of roughage.
- 2-Irregular feeding timed.
- 3-Chronic confinement.
- 4-Parasitic infestation.

## Harmful effects:

- 1-Colic and severe illness.
- 2-Death in case of eating mouldy bedding.

## Remedy:

### 1- avoid the cause:

- Supply the animal with a balanced and good food quality.
  - Regular feeding time.
  - Treatment of internal parasites.
  - Use the type of bedding which the horse will not eat.
- 2 - Apply a **muzzle** after feeding.

## 4-Geophagia

Some horses sometimes practice the habit of eating soil, sand and dirt .

This condition has been termed geophagia

**eating soil, sand and dirt**



## **Causes:**

- 1-Chronic confinement and lack of exercise.**
- 2-Mineral deficiency specially phosphorus and iron.**
- 3-Parasitic infestation.**

## **Harmful effects:**

- 1- Sever colic.**
- 2- Sand impaction of the caecum and colon which may lead to death of the animal.**

# Remedy:

## 1- avoid the cause:

- Mineral supply in the form of:

- \* salt blocks
- \* bone meal as a source of phosphorus.
- Regular exercise.
- Treatment of internal parasites.

2-Application of **muzzle** after feeding.



## 5-Coprophagia ( Eating dung)

Eating dung generally occurs in half-starved animals or in those suffering from indigestion. Foals sometimes learn the habit when kept in through bad weather.



## **Causes:**

- 1-Chronic confinement in loose box.
- 2-Lack of exercise.
- 3-Inadequate quantity of feeds.
- 4-Unhygienic measure in the stall.

## **Remedy:**

- 1-Freedom of the animal movement.
- 2-Sufficient quantity of feeds.
- 3-A muzzle should be applied.
- 4-Tying up the animal.
- 5-Treat the indigestion.
- 6-Dung must be removed three or four times daily or immediately after it is passed.

## 6-Throwing the food out of the manger

\*Some horses prefers to eat from the ground and will therefore throw their food out of the mangers with their noses. Others do so to find the grain below the upper layers of chaff.

### Remedy:

- 1-fix a bar a cross the manger at either end or to food from a clean sheet on the ground .
- 2-put the food in a small quantity infront of the horse.

# 7-Tearing clothes

\*The horse snaps at his rug or quarter sheet and tear it.

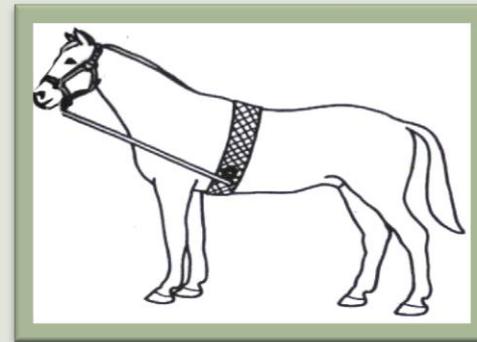
Remedy:

- 1-Apply a muzzle.
- 2-Apply at the neck region.

a creadle



side-sticks



## 8-Hyperphagia ( Over eating)

It is the consumption of large quantities of food in a very short time i.e. rapid eating especially concentrated feed.

## **Causes:**

- 1-Supply the animal with large quantities of concentrate at once.
- 2-Malfunction in the hypothalamus.

## **Remedy:**

- 1-Regular feeding times.
- 2-Good balanced ration and spread the grain in a thin layer in the feed trough.
- 3-Gastric lavage and finally surgical operation.

# 9-Polydipsia

- It means that excessive drinking of water which may be spread over a period or may be concentrated within a relatively short time of two or three hours.
- In equines ,it is called *Polydipsia nervosa*. The horse will consume about 140 liters daily or about three to four times the normal quantity.

## **Causes:**

Close confinement associated with ad libitum water supply.

## **Harmful effects:**

1-It may reduce the nutritional value of the feed.

2-Lead to gastric or intestinal twist or vavulus due to heavy load.

## **Remedy:**

1-The provision of rationed water.

2-Providing better housing and regular exercise.

## B) In cattle

- There are several types of abnormal behaviour related to self and environment directed as the follows:
  1. Self mutilation
  2. Licking and eating own hair
  3. Sucking and eating solid objects
  4. Eating-bedding
  5. Eating earth ,soil ,sand and dirt
  6. Hyperphagia ( Over eating)
  7. . Polydipsia

# 1- Self mutilation

- -It occurs occasionally in cattle in which the animals will bite or kick at themselves.
- -**Cause, harmful effects and remedy of self mutilation in cattle**, as the same mentioned in equines.

## 2- Licking and eating own hair

<b>Definition:</b>	This behaviour occurs <b>in young dairy calves</b> which results in the ingestion of large quantities of hair.
<b>Causes:</b>	<ul style="list-style-type: none"><li>- Individual housing of young calves in individual crates.</li><li>- Early weaning of calves</li></ul>
<b>Harmful effects:</b>	<ul style="list-style-type: none"><li>- Formation of hair balls which may be as large as 1.5 cm in diameter resulting in obstruction of the rumen.</li></ul>
<b>Remedy:</b>	<ul style="list-style-type: none"><li>- Changing the housing of calves.</li><li>- Application of a muzzle.</li></ul>

## 3- Sucking and eating solid objects

-It occurs **in recently weaned calves.**

-In older cattle it occurs in the form of eating and chewing of solid objects such as wood, cloth and old bones.

- This behaviour called **pica.**

<b>Causes:</b>	<ul style="list-style-type: none"><li>- Early weaning of calves.</li><li>- Separation of calves from their mothers in the first few days after calving.</li><li>- Phosphorous deficiency and lack of roughage.</li></ul>
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**Harmful effects and remedy as in equines.**

#### 4- Eating-bedding

-This behaviour as the same in equines.

#### 5- Eating earth,soil,sand and dirt

-As in equines and it lead to sand impaction of the abomasums.

#### 6- Hyperphagia ( Over eating)

-As in equines and this abnormal behaviour, leading to :a condition known as **grain over load** or **rumenal impaction** and acidosis which is highly fatal.

#### 7- Polydipsia

-As in equines.

# C: In sheep

There are several types of abnormal behaviour related to self and environment directed as the following:

- 1- Self-mutilation
- 2- Licking
- 3- Eating own wool
- 4- Sucking and eating solid objects
- 5- Hyperphagia
- 6- Polydipsia

The causes, harmful effects and remedy in the abnormal behaviour in sheep are the same mentioned before in cattle

# D: In Dog:

## 1- Pica (Ingestion of inappropriate materials)

Definition:	Some dogs often consume inappropriate materials like, stones or other objects which can cause stomach or intestinal impaction.
Remedy:	<ul style="list-style-type: none"><li>• <u>This problem can be treated with extinction and remote punishment.</u></li></ul> Types of punishment that have been used with some success include : baiting the objects with a hot pepper powder, mouse traps or hot wires

## 2- Coprophagy

### causes

1. It may be essentially a displacement activity in response to boredom.
2. It may be an attention-getting behaviour.
3. Due to unknown nutritional deficiency.

### Remedy:

This stereotype can be controlled through;

1-remove the cause:

Correct the dietary meals and frequently given.

2-punishment:

- Baiting feces with a foul-tasting substance like hot pepper powder.
- Producing taste aversion learning by injecting apomorphine into dog's feces which will cause nausea and vomiting shortly after ingestion.

# E: In poultry

## 1-Pulling and eating own feathers (feather pulling)

It occurs mainly in the **caged birds**, which pull out their own feathers with or without eating it.

### Causes:

1. High stocking density of caged birds.
2. Bad environmental condition.
3. Unbalanced ration.

### Harmful effects:

- It leads to feather pecking and finally lead to cannibalism.

### Remedy:

1. Avoid the overcrowdness in the cage.
2. Improve the environmental condition.
3. Good and balanced ration.

## 2- Eating litter

This behaviour is seen in chickens and turkeys which are reared in deep litter system, with wood shaving or saw dust.

### Causes:

1. Insufficient feeding trough space.
2. Mineral deficiency in ration.
3. Genetic factors.

### Harmful effects:

- Birds are liable to develop **impaction** of the crop or gizzard or other alimentary region which may cause **death** in many cases.

### Remedy:

1. Adequate feed trough space for birds.
2. Balanced ration and feed bird ad libitum.

## 2-Abnormal behaviour directed (addressed) to other animals:

### A) In cattle:

1. Intersucking by calves
2. Intersucking (or milk sucking) by  
adult animal

1. Intersucking by calves

- Calves separated from their dams usually suck & lick at their own bodies or at objects in their pens.
- They commonly suck navel, prepuce, scrotum or udder (in female) and ears of other animal.

#### Causes:

1. Early weaning & bucket feeding of calves.
2. Mimicry.

#### Harmful effects:

1. In case of hair sucking, hair balls( Tricho bezoars) in rumen and abomasum → digestive problem & may cause death
1. Sucking peins → drink urine → liver disorder → decrease feed intake
2. Sucking part of other animal → this part become → inflamed, damaged & infected.

#### Remedy:

- 1-feeding from artificial teat
- 2-the calf is isolated & tied shortly after bucket feeding for an hour.
- 3- supply of roughages (such as 15 g straw)
- 4- In case of urine drinking → plentiful supply of water
- 5- anti-sucking bit.

## 2-Inter sucking (or milk sucking) by adult animal

<b>Definition:</b>	-This behaviour involves a cow or bull sucking milk from udder of a cow
<b>Occurrence:</b>	<ul style="list-style-type: none"><li>• Among “<b>suckler</b>” herds of cows with nursing calves “<b>sneak sucking</b>” may occur by <u>alien calves</u> or by <u>adult animals</u> such as bulls.</li><li>• On rare occasions milking cows are discovered with the habit of sucking milk from their own udders.</li><li>• Occur during the period of idling by the herd, they are therefore more easily seen among cattle awaiting the evening milking or resting in the early afternoon when grazing animals often loaf.</li></ul>
<b>Causes:</b>	<ol style="list-style-type: none"><li>1. Hereditary: more frequently seen in <b>Jersey</b> than in <b>Holstein</b>.</li><li>2. This anomaly is to husbandry- related and that condition can increase in frequency as a result of imitation (mimicry), so it is commonly seen in open husbandry system.</li><li>3. Calves which show intersucking may go to inter sucking when adult.</li><li>4. Mimicry.</li></ol>
<b>Harmful effects:</b>	<ol style="list-style-type: none"><li>1. Loss of milk</li><li>2. teat damage</li><li>3. pathological changes and deformities of udder</li></ol>

### **1. avoid the cause:**

- Affected animals should be isolated.
- Culling of affected animal become necessary.
- Offering roughages during idling period as a preventive measure.

### **2. Mechanical treatment:**

- Short tying, tying up short
- apply neck cradle or side stick
- or using of yoke fastening

### **3. Application of anti sucking bit**

### **4. Application of devices, which carry pointed prongs, to the face and nose region of the sucking animal.**

#### **Disadvantages:**

- Hindrance of the natural feeding
- If the affected animal is persistent, it can inflict wounds on other animals.

### **5. Immediate punishment:**

A modern electrical device is secured to the forehead of the sucking animal and giving shock to the wearer when the circuit is closed by head pressure .(the shock is received by the sucking animal)

Remedy:

## B ) In poultry:

1. Feather pecking
2. Cannibalism
3. Egg eating
4. floor laying

# 1- feather pecking:

It is considered as one of the most serious behavioural problems, occurring both in caged and birds kept in floor system

## Causes:

It has been shown that many managemental and environmental factors can influence the occurrence of feather pecking such as,

1. Genetic background.
2. Stocking density and group size (excessive population density).
3. Dietary composition.
4. Poor ventilation.
5. High temperature.
6. Low humidity.
7. Excess illumination (increasing the light intensity).

## Harmful effects:

1. loss of feather
2. A serious final phase of feather pecking in poultry is called **cannibalism** which cause high mortalities especially in case of vent pecking & vent cannibalism (common)

Remedy:

**1. Remove the cause,**

- Improve the environment and management in the poultry house.
- Addition of salt to the diet.

**2. It is important to provide poultry with floors which are highly appreciated as incentives for ground pecking.**

**3. Debeaking or beak trimming.**

**4. Limit the bird's vision through:**

- The use of poly peepers (aluminum rings are fixed to upper beak)
- Darkening of the poultry pens
- Changing the light in the poultry house to red hue through, the use of infra red lamps or painting window panes red.

## 2- cannibalism:

Feather pulling can result in severe damage of the integument including wounds to the skin; wound birds may be pecked to death.

-This is called cannibalism and regarded as a final phase of feather pecking.

- Cannibalism can also occur without previous feather pecking, this is referred to as **vent pecking**.

### Causes:

- Environmental factors** that previously mentioned in feather pecking are important for the increase incidence of cannibalism.
- Nutritional disorders:** as deficiency of protein and mineral in ration.

### Harmful effects:

- Economic loss in the poultry farm.
- This problem lead to high mortality rate in poultry

### Remedy:

1. Improve the environment surrounding the poultry
2. Beak-trimming ( debeaking).

## 3- Egg eating:

- This behaviour begins with a bird pecking at an egg until it is broken.
- The contents of the egg are then partially ingested.
- This problem occurs more frequently in cage system.

### Causes:

1. Unbalanced ration specially deficiency of Ca and Ph.
2. Lack of grit.
3. Soft shelled-eggs
4. Inadequate number of egg nest in the poultry house.
5. Irregular time in egg collection.

### Harmful effects:

Economic loss in egg production

### Remedy:

1. Improve the hygienic parameters in poultry house.
2. Balanced ration.
3. Addition of oyster shell and grit.
4. Beak-trimming.
5. Frequent egg collection.
6. Culling of affected bird (which detected by injecting egg with strong food dye →the bird which eat it will contaminate its head with dye & easily to be discovered.

# 4- floor laying:

The hens laid their eggs outside the nests and a high frequency of floor eggs result in increasing labor requirements, impaired egg quality and fewer saleable eggs.  
-it occur in layers and breeders in D-L system

## Causes:

1. Genetic factors.
2. Conditions and **design** of poultry houses and nest boxes.
3. Inadequate **number** of egg nest in poultry house.
4. **Ectoparasites** in the nest.

## Harmful effects:

1. Floor eggs are either:
  - broken which encourages egg eating
  - or dirty which reduces value or hatchability (impaired egg quality and fewer saleable eggs).
1. high frequency of floor eggs result in increasing labor requirements,

## Remedy:

- There is increasing understanding of the factors which affect nest site selection and floor lying. These include rearing conditions, housing conditions, nest box design and human intervention.
1. Sufficient egg nest box with sufficient bedding.
  2. Eradication of Ectoparasites by use of metrophonate, diazinon.