Practicals

Introduction to the handling and examining the pig

Biosecurity – Veterinary Dress Code

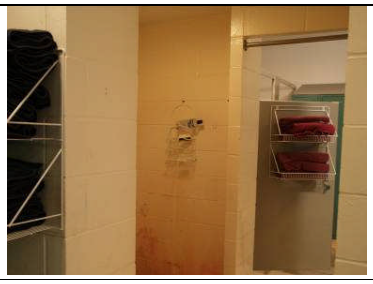
It is absolutely essential that a veterinarian does not transmit pathogens from one farm to another. The easiest method that a veterinarian may transmit pathogens is through poor hygiene.

Primary philosophy of veterinary medicine – First do no harm

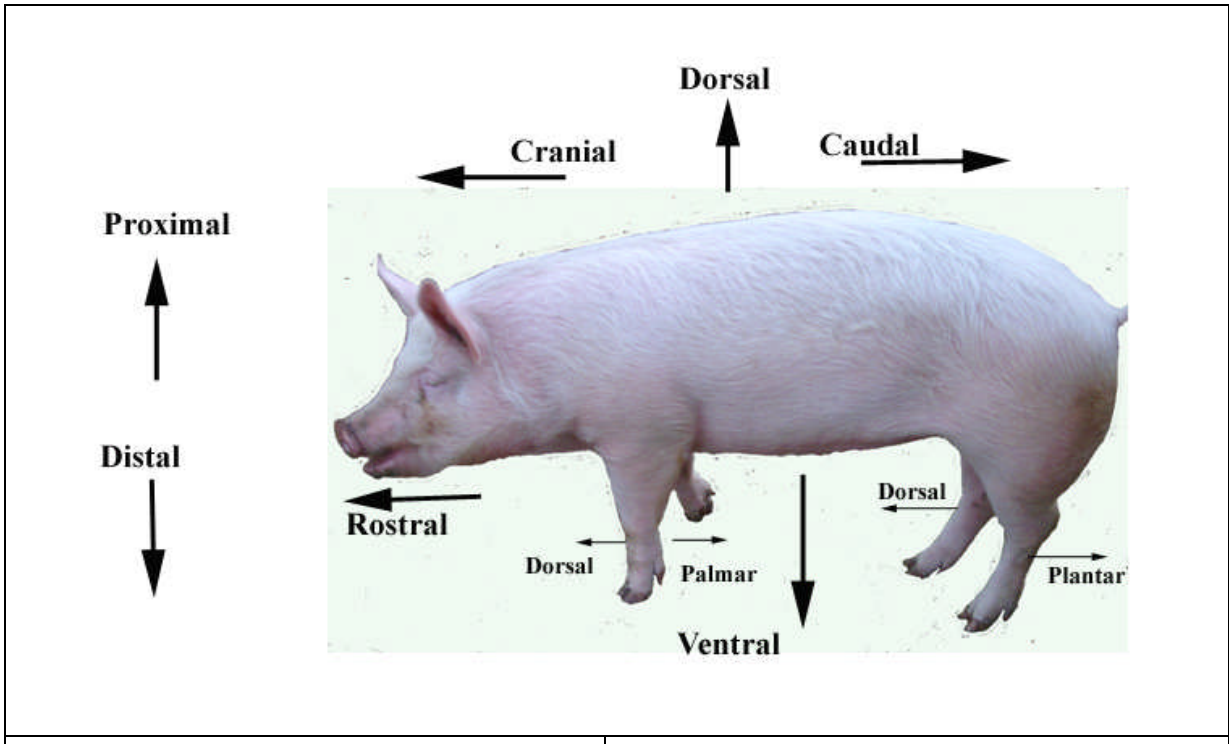
Foot wear

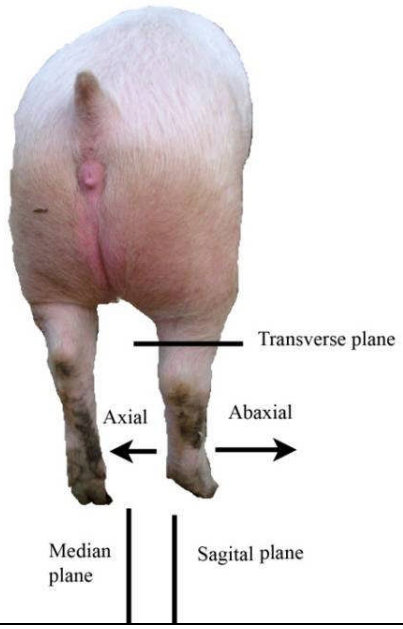
		
Clean boots are essential	All faecal material (arrow) must be removed - sole	And heel and sides
		
The foot wear must be easily cleaned and waterproof. Lace and Swede shoes are totally unsuitable	Ideally wear footwear provided by the farmer	Animals can are very inquisitive and will lick any material from your boots – and thus get sick

Protective clothing

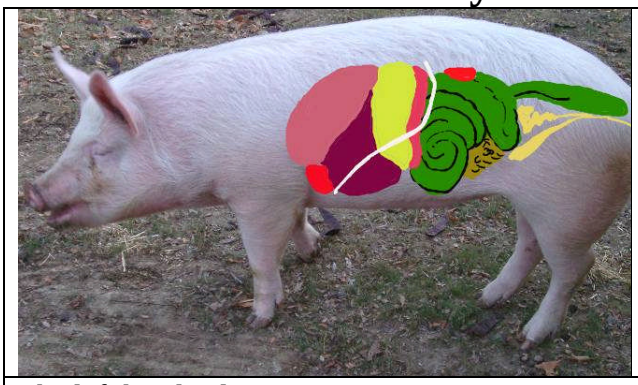
		
Always wear protective clothing on farms – street clothing is unsuitable	Protective clothing must cover all your daily clothes. Disposable protective clothing area ideal	Exposed clothing cap (arrow 1) and street clothes (2) which cannot go to the next farm.
		
Ideally wear protective clothing provided by the farmer	Showering may be required by some high health farms combined with a period of animal absence	Ensure all exposed flesh – hands, arms, face are clean and not splattered with faeces or blood

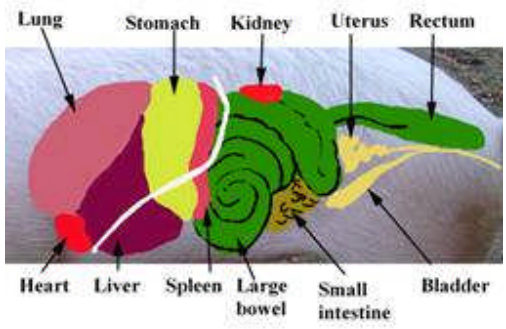
Pig Orientation



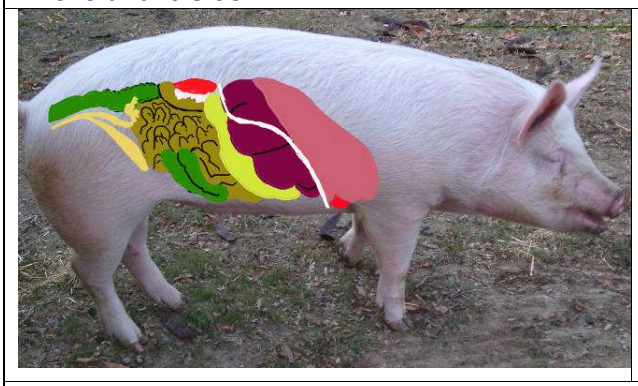


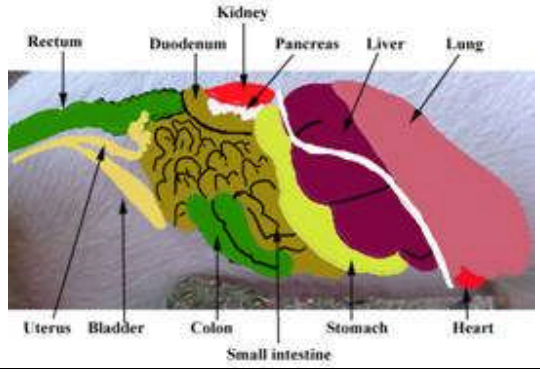
Anatomy – the basic landmarks



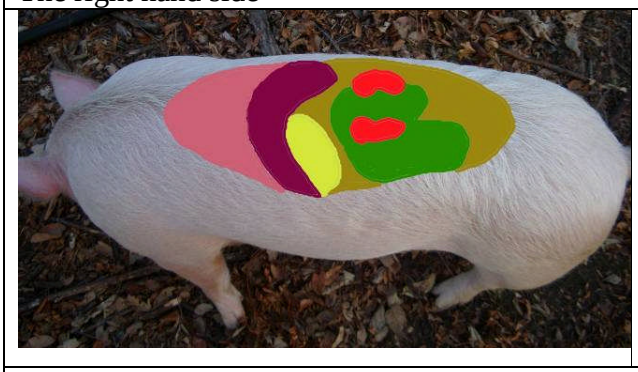


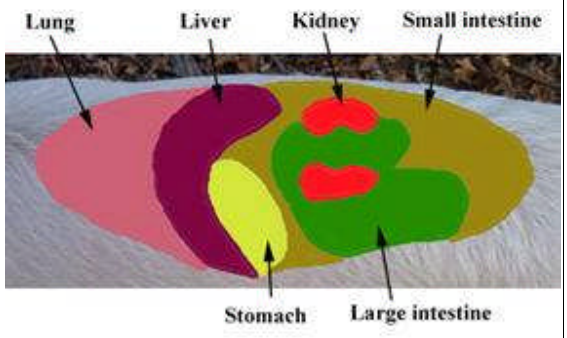
The left hand side



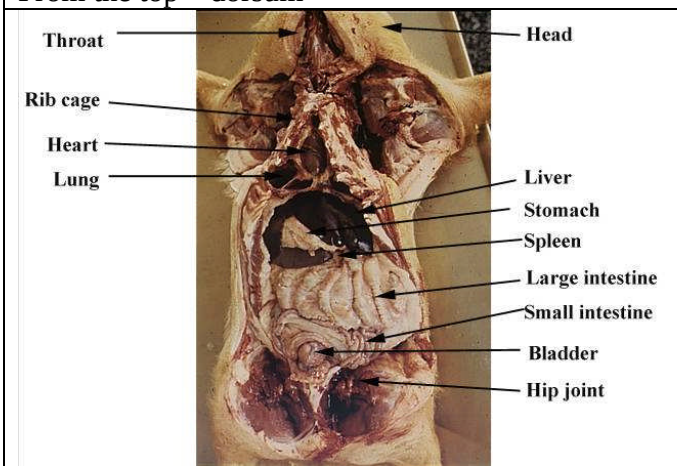


The right hand side

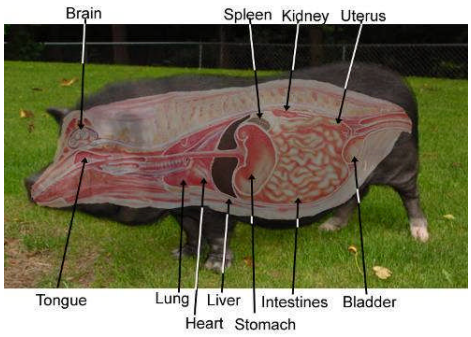




From the top – dorsum



Cut away example



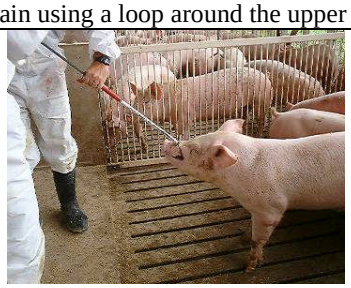
HANDLING AND MOVING PIGS

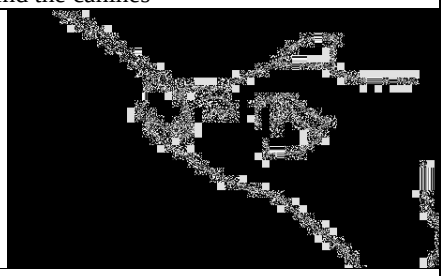
Most pigs are not used to being handled. They become very vocal when caught and will not settle easily. Pigs will work as a herd or as individuals, before moving a group of pigs think of escape routes you would take and then try to block them.

Handling

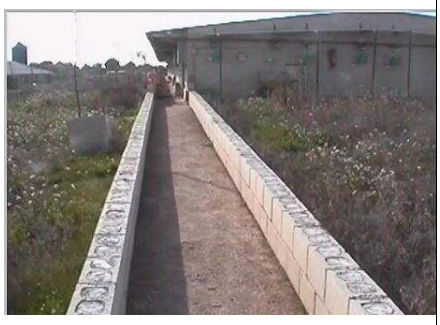
Young pigs may be picked up and will generally settle

Older pigs examine within a crate or restrain using a loop around the upper jaw behind the canines





Moving



Pigs can be moved as a group	Design passageway to prevent escapes. Walls 850 mm high	Young pigs may be easier to move in a barrow

Pigs have a wide angle 310 degree vision which allows them to see behind themselves without turning their heads. They are easily distracted by objects to the front and sides and sharp changes in floor texture and appearance. A shaft of sunlight is sufficient to affect pig movement.

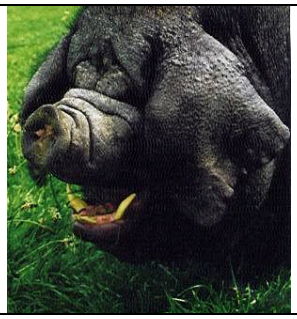
When moving growers pigs use a pig boards, hands and your voice. Avoid electric prods

There is never any need to use violence - the pig will object

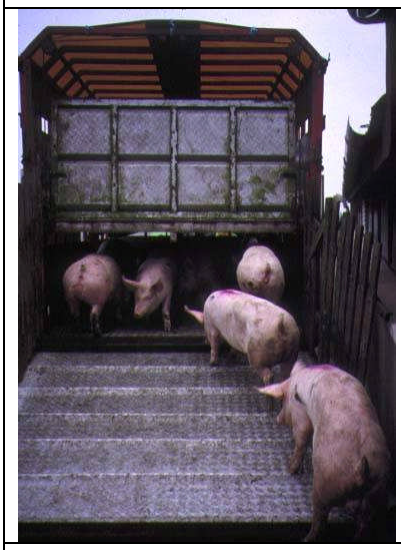
Pigs move much easier in a quiet controlled environment

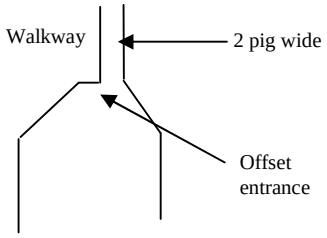
Pigs can be trained to a harness. This is how they are used to hunt truffles.

Boars can be trained to walk to heel and follow a route



Take special care with boars or lactating sows. Pigs are armed with razor blades





Loading finishing pig can be a particularly stressful time for a pig. It is essential to carefully design the loading area. Avoid steps and any rise over 20^{o}. Ensure the area is well lit with out corners. The use of hydraulic lifts (right) is to be encouraged.

With ramps they should be constructed with at least 850 mm high to prevent distraction. The passageway should allow 2 pigs to move at the same time, allowing physical contact. Have an offset panel at ramp entrances, rather than a funnel. A catwalk along the outside of the ramp will allow staff easy access to the pigs on the ramp to improve pig movement.

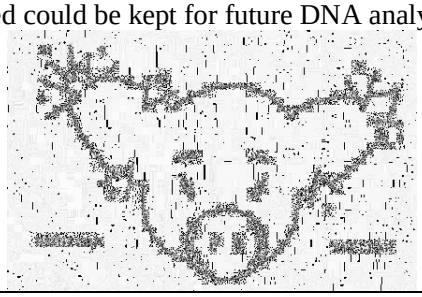
Identification of Pigs

Formal identification of pigs or pens is essential for record analysis

Ear notching

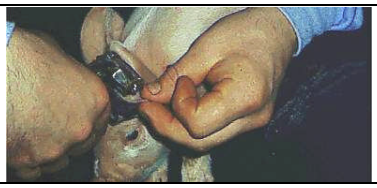
The pig's ears are notched in the farrowing house
The right ear signifies the mother's number the left ear the piglet's number within the litter
One of the small notches removed could be kept for future DNA analysis

Notching equipment



Ear tattoo

Again applied in the farrowing house. Tattoos can be very difficult to read in older life



Slap maker – prior to slaughter

This is to be read after the animals are dead and de-haired

Ear tag

These can be applied at any age. Two tags are more likely to allow identification to be retained. The tags may be electronic to allow computer identification. The ear tag can be notched to help identification outdoors. Pigs over 60 kg which are treated with njectable antibiotics should be individually tagged

Spray marking

Useful for temporary identification of medicated or selected pigs. However, note that many sprays do not last for the entire length of medicine withdrawal times. Pigs in some parts of the world are spray marked before loading when intended for slaughter. Computerized sorting can mark pigs

Hair Clipping

Can be useful as a temporary marking method. Using a pair of curved scissors trim a line of hair. The hair will regrow in 6 weeks

Clinical Examination Skills
Clinical examination of an individual pig

Follow a set procedure to examine the animal

		
Assess the pig's normal behaviour, its locomotion and its response to its owners. Enquire about eating, urination and defecating patterns.	Remember that the pig may live in a group (sounder) at home and other pigs may be presenting with the same clinical signs	Enquire about the recent history of the pig

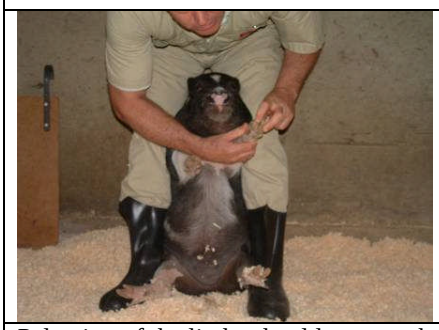
Examination of an cooperative pig

		
Make contact both vocally and physically. Assess the body condition. Check breathing rate	Take the rectal temperature. Normal 39°C. Examine the external genitalia.	Palpate the lumbar muscles, hind legs, abdomen and mammary area.
		
Some pigs may allow auscultation – but this is generally unrewarding	Pigs like to be scratched particularly behind the ear and along the back. Check the head of the pig for any discharges from the nose, eyes, mouth	When handling the head watch that the pig does not try and bite

Examine the feet while standing

Grasp the pig's front legs firmly. The pig is likely to vocally object.

Place the pig on its rear, holding its back with your knees



Palpation of the limbs should start at the top and work down the limb to the feet

Collect any samples are required. A blood sample can be obtained in this sitting position from the jugular vein

Uncooperative pig

In an uncooperative pig, from the sitting position restrain the pig on its back where it will generally stop struggling.
A full clinical examination can now be completed starting from the rear of the pig to the front of the pig

Walk backwards and lower the pig between your legs. Support its back with your feet and lower leg.

Keep a hold on the back legs and take the pig's rectal temperature

Examine the anus for any discharge. Take samples if necessary

Examine the external genitalia

Examine the superficial lymph nodes

Examine the left hind leg from toe to hip

		
Examine the right hind leg from toe to hip	Examine the caudal ventral body wall and mammary glands	Carefully move your rotate your body to face the pig's head
		
Support the pig with your feet under the shoulder blades (arrow)	Examine the pig's eyes and jaw	Examine the pig's ears
		
Examine the pig's mouth using a mouth gag	Auscultate the heart and chest	Examine the left and right foreleg
		
Examine the cranial ventral body wall	Relax your left foot from the shoulder the pig will rotate onto its feet	Examine the dorsal body wall as the pig moves away

Stockperson's clinical signs of an unwell pig

Know what is normal about your pigs
– if you don't know what is normal how can you recognize abnormal?

Before entering the pen		
Look	**Pig not eating**	Pigs generally love food and a change in their eating patterns should always be a cause of further investigation
	Change in behaviour	Depending on the group size pigs individual behaviours may be known or the group has its own behaviour patterns
		Ideally the stockperson will know all the pigs personally, however, even in a large group; individual pigs tend to stand out, whereas the mass, sadly are unknown. The pigs that do standout are the extremes – the top social order pigs, the lower social pigs and perhaps a few others who have unusual body markings – wolf pig, leopard spotted etc.
	Group behaviours	
	Lying patterns	Try to observe the known pigs and note their lying patterns and position within the group. A sow standing at 2.00 in the afternoon, while all her companions are asleep may be in heat. She is exhibiting an unusual behaviour
	Individual being different	Look for pigs who are separate from the group
		Note groups of pigs gathered around a drinker or a feeder
Listen	**Note noises coughing or sneezing**	On entry to the room notice the sounds of greeting made by the pigs. Pigs with Swine Influenza are often very quiet and reluctant to get up as you enter. Well managed pigs should be pleased to see you.
		As the pigs move around, note any coughing or sneezing
Smell		Become familiar with the normal body odours of pigs. Swine Dysentery and Swine Fever may cause malodorous smells.
Enter the pen and walk the pigs		
Look		Look for the individuals, give them memorable names.
	Movement	Ensure all the pigs get up.
		Note pigs can be stiff or rising, but within 5 to 10 strides the stiffness should walk off
		Walk over to any pigs who fail to rise or walk off any stiffness
	Urination	When pigs rise, particularly in the morning they will urinate within 5 minutes. Note the colour of the urine and the posture of the pig urinating.
	Blood	Look for any blood on the floor or walls.
	Floor	Look at the floor for the consistency of the stools.
Listen		As the pigs move around note any coughing or sneezing
Smell		Smell the air – if a pig has died the first indication may be a smell

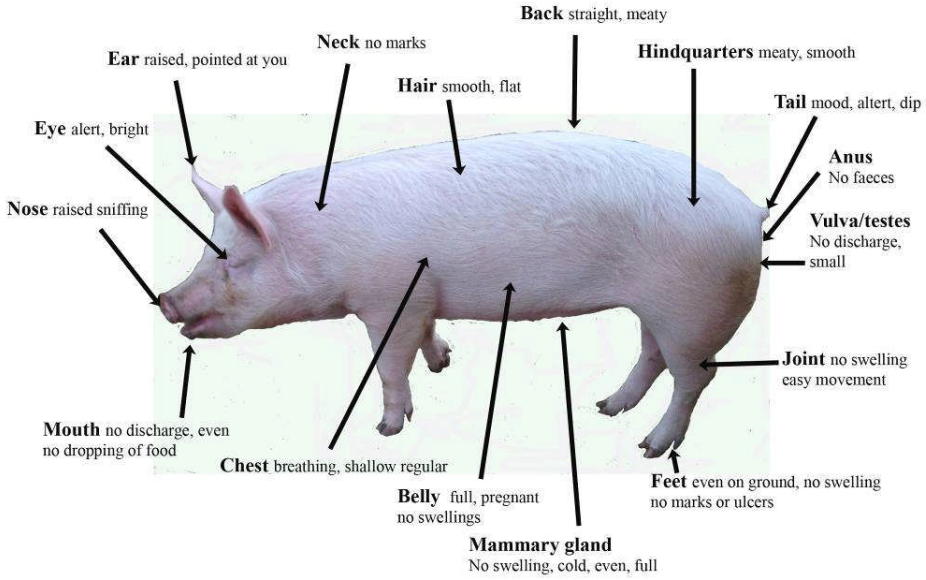
Individual pig behaviour		
This includes any pig placed in a compromised/hospital pen.		
Pigs housed in small numbers should all be given names. This should include artificial insemination centres and adults on farms of less than 50 sows.		
Know	Behaviour	Know the pig's normal behaviour and note any sudden or progressive change in behaviour
	Feed	Know what food the pig likes and dislikes.
	Reproduction	Know what stage of reproduction the pig is at and note if the expected oestrus behaviour patterns fails to materialise
		Note changes in males (even when castrated) can occur in the presence of receptive females
Look		Loss of appetite – pigs should beg for food
		Changes in behaviour – aggressive/less aggressive
		Changes in head/ear posture
		Changes in eye's brightness
		Change in skin colour or hair position
		Locomotor changes – reluctance to get up, do normal tricks
		Dirty anal/tail area – diarrhoea. Changes in the stools. Signs of vomit
Listen		Coughing, sneezing, wheezing and breathing depth
Feel		Presence of a lump – may be felt rather than seen

Once you have identified that there may be a problem, examine the pig in more detail

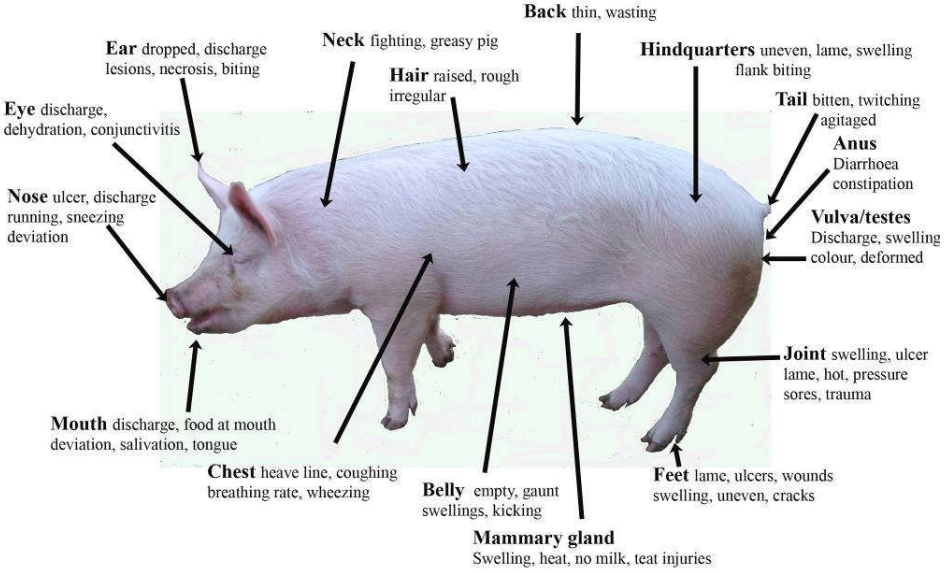
Stockpeople basics

Normal and Abnormal Clinical Signs

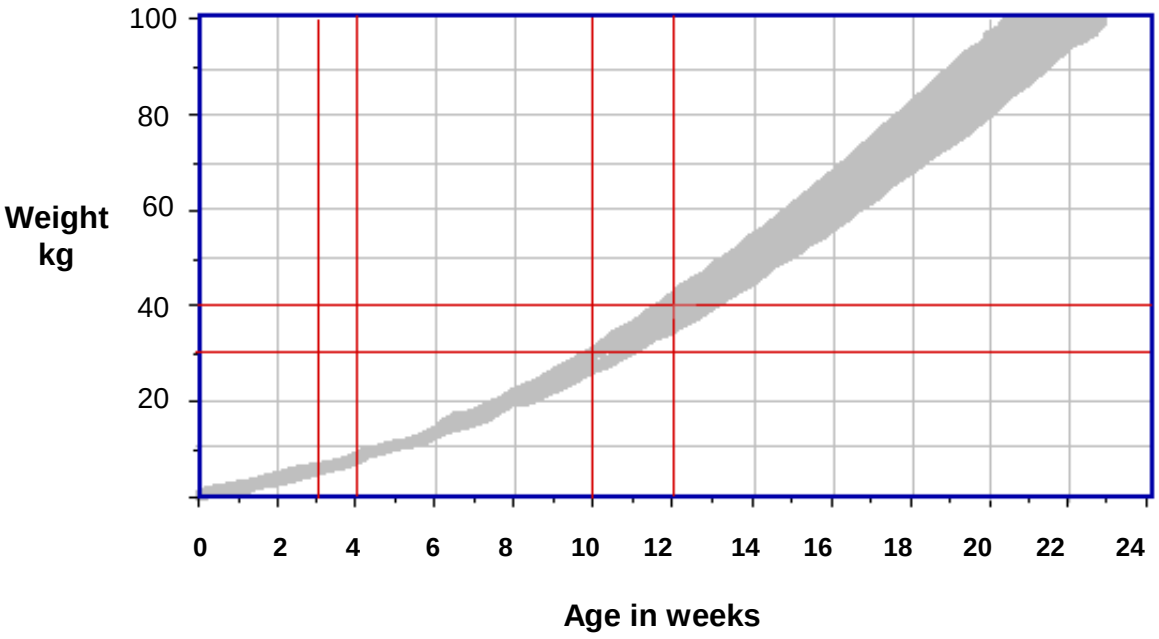
Normal expected signs



Signs which should raise concern



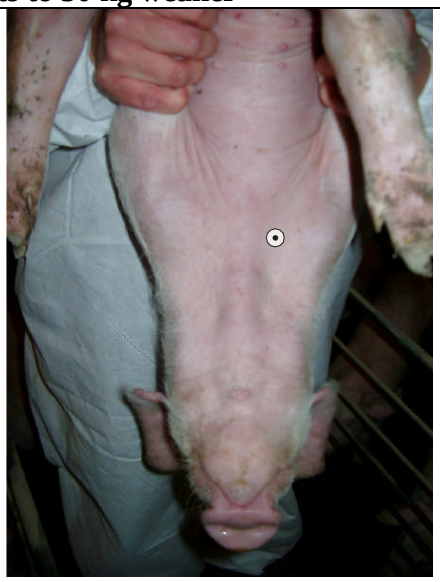
Growth rate of normal pigs



Age of the pig		Daily Liveweight Gain	Weight
Weeks	Days	g/day	(kg)
4	28	215	7.0
6	42	395	12.5
8	56	630	21.3
10	70	660	30.5
12	84	715	40.5
14	98	800	51.5
16	112	965	65.0
18	126	1000	80.0
20	140	1100	95.0
22	154	1100	110.0

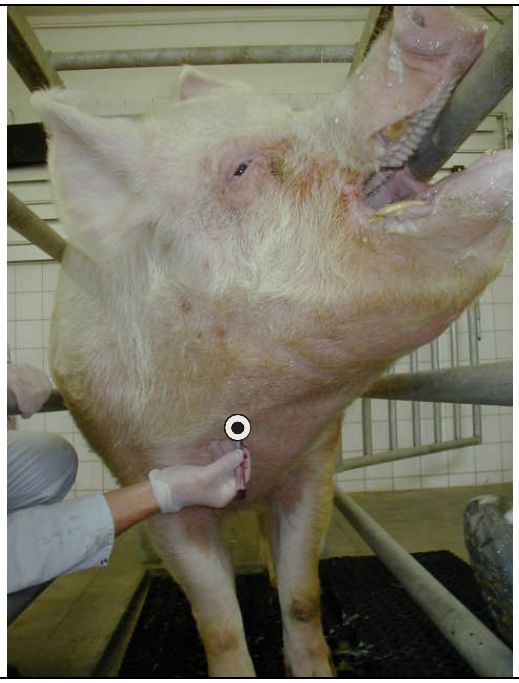
Blood Collection in Pigs

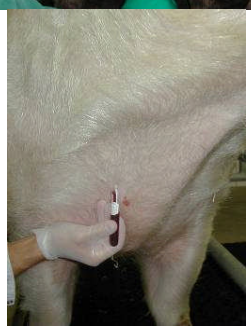
Piglets to 30 kg weaner



Avoid the left hand side as it is possible to damage the left recurrent laryngeal nerve

Adult





Grower and finisher pigs may be bled out of the jugular with a vaccutainer and a 30 mm (1 inch) needle. Most adults can be bled with a 40 mm 18 guage (1.5 inch) needle. Keep the needle perpendicular to the skin and vertical. Do not try too hard by moving the needle lateral and medial searching for the jugular. Most problems occur because needle is not in deep enough and the needle tip is bouncing off the jugular.