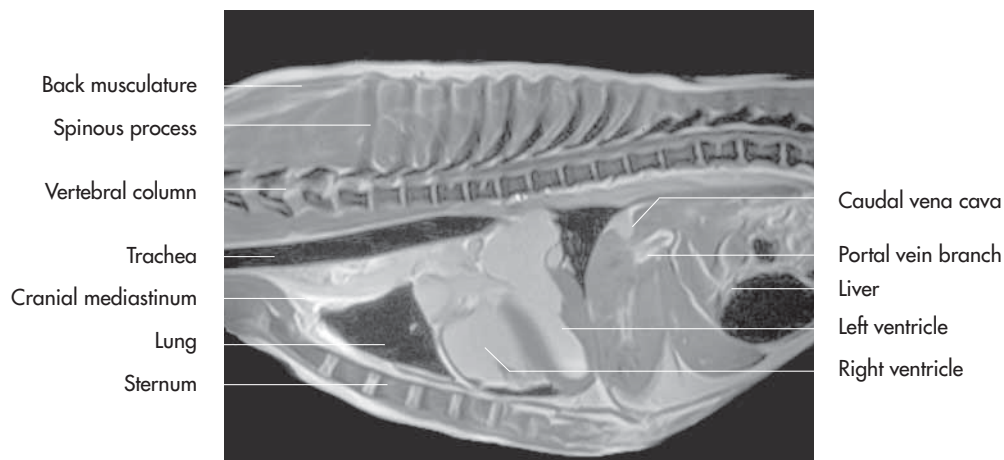


**Fig. 6-12.** Magnetic resonance imaging of the thorax including the intrathoracic segment of the abdominal cavity of a dog (coronal view); courtesy of Dr. Isa Foltin, Regensburg.



**Fig. 6-13.** Magnetic resonance imaging of the thorax including the cranial abdominal cavity of a dog (sagittal view); courtesy of Dr. Isa Foltin, Regensburg.

terica cranialis). The organs at the ends of the gastrointestinal tract attain their final positions in the abdominal cavity (Fig. 6-9) and the cranial mesenteric artery becomes the cranial **root of the mesentery** (radix mesenterii). (For a detailed description of this process, see an Embryology textbook.)

In large herbivores, voluminous and especially heavy sections of the digestive system (e.g. a equine's large intestine) are supported by shortened mesenteries that are partly fused to the dorsal abdominal wall through dense connective tissue. This reduces the considerable weight of the filled intestinal convolutes that would otherwise rest upon the ventral abdominal wall. The weight of the dorsal rumen sack and of the ruminant spleen is also reduced through connective tissue fusions with the dorsal abdominal wall.

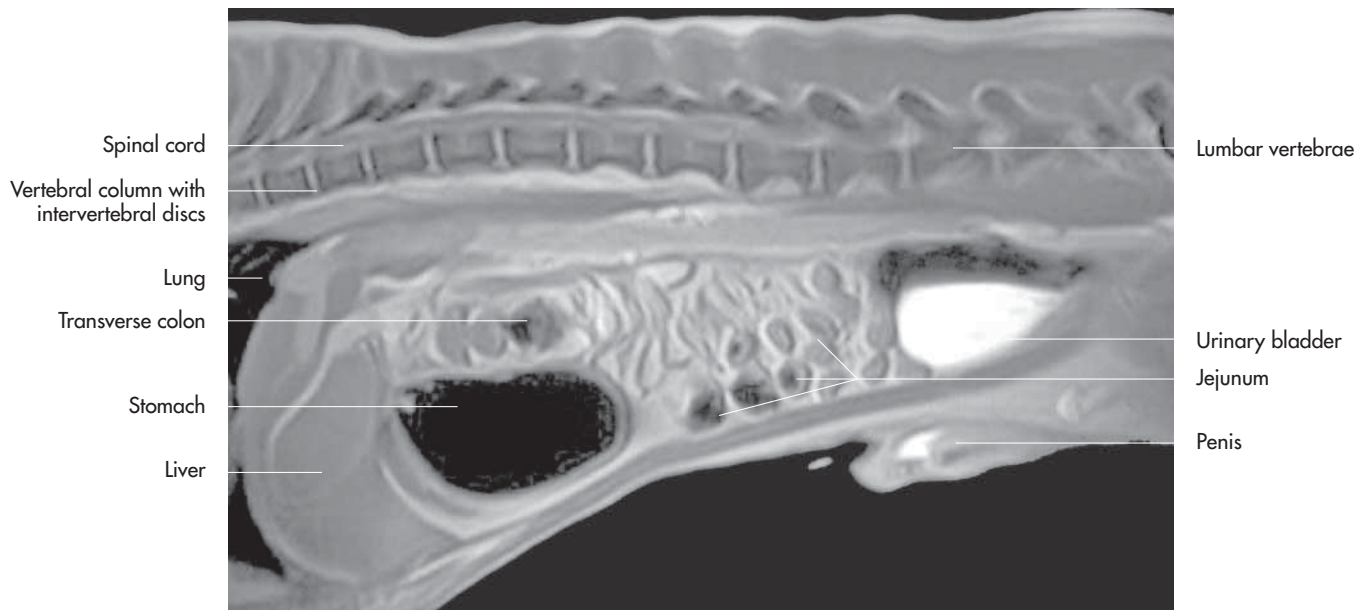
### Pelvic cavity (cavum pelvis)

The pelvic cavity is bordered by the sacrum, a species-dependent number of caudal vertebrae, and the two pelvic bones, which meet ventrally in the pelvic symphysis. These structures form a bony ring, which is in turn surrounded by the muscles of the hip and rump. The muscles of the pelvic girdle extend from dorsal and lateral into the pelvic cavity.

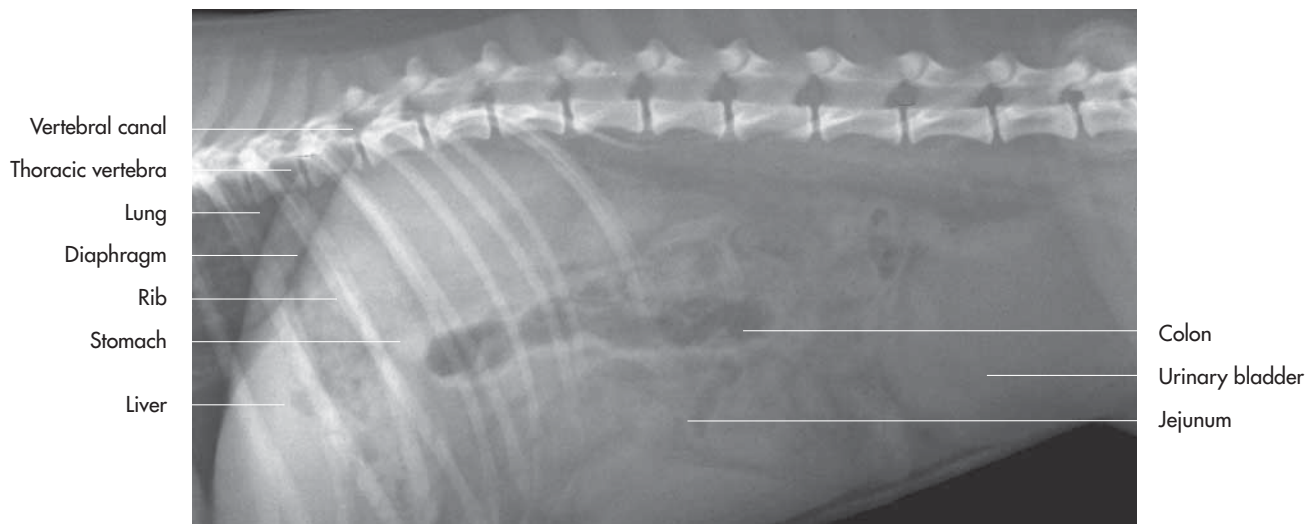
The **pelvic inlet** (apertura pelvis cranialis) is bordered by the **terminal line** (linea terminalis) in all domestic animal species. The pelvic cavity ends ventrally in all domestic species at the **ischiatric arch** (arcus ischiadicus), but ends dorsally after a species-dependent number of caudal vertebrae. The **pelvic diaphragm** (diaphragma pelvis) closes the **pelvic outlet** (apertura pelvis caudalis). In carnivores, pigs



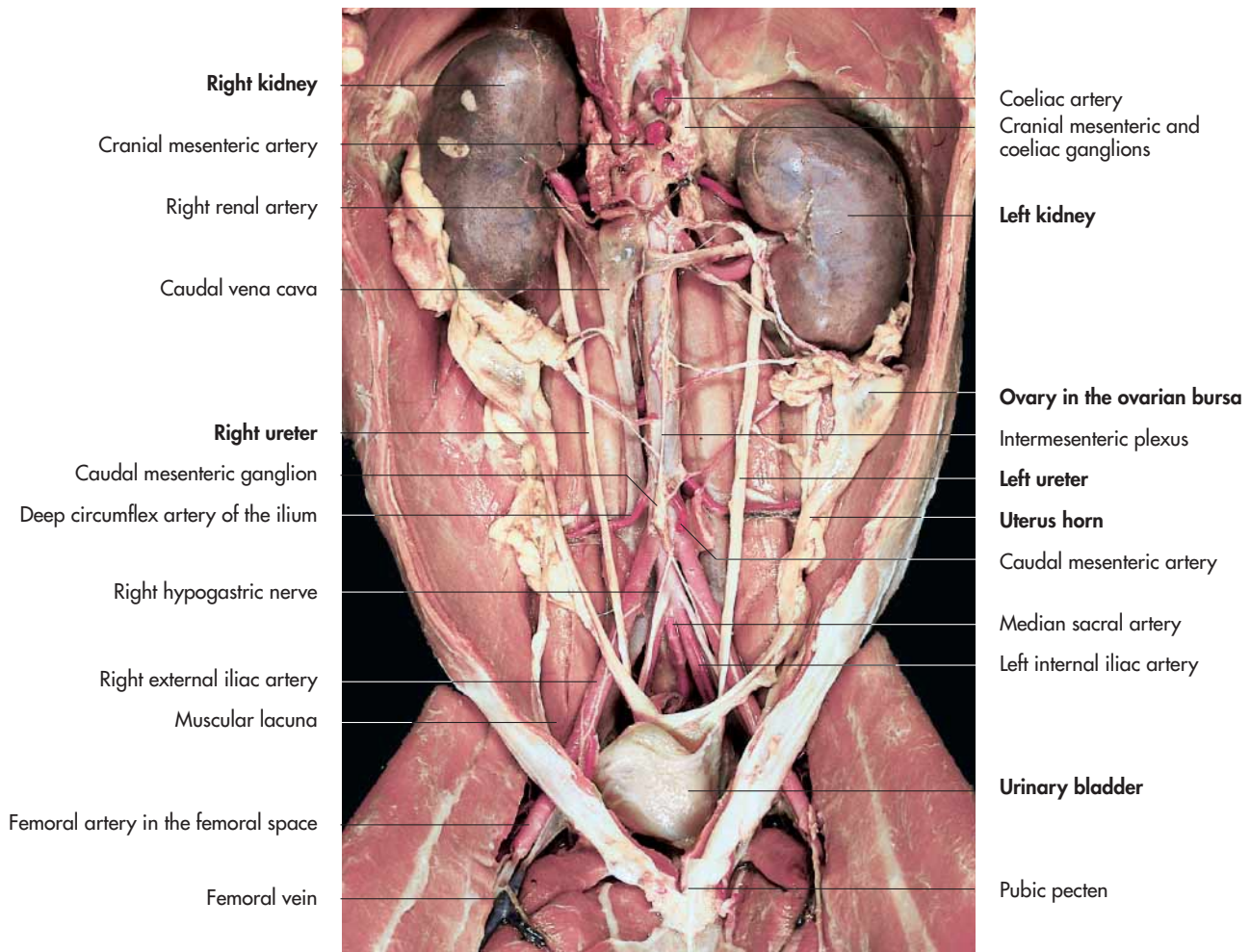
**Fig. 6-14.** Sagittal section through the abdominal and pelvic cavities of a dog (E 12 plastination); courtesy of Prof. Dr. M.-C. Sora, Vienna.



**Fig. 6-15.** Magnetic resonance imaging of a sagittal section through the abdominal and pelvic cavities of a dog; courtesy of Dr. Isa Foltin, Regensburg.



**Fig. 6-16.** Image of the abdominal and pelvic cavities of a cat (radiograph, laterolateral view); courtesy of Prof. Dr. Ulrike Matis, Munich.



**Fig. 6-17.** Retroperitoneal muscles, organs, vessels and nerve tracts on the dorsal wall of the abdominal and pelvic cavities of a female dog (ventral aspect); courtesy of Dr. R. Macher, Vienna.

and small ruminants, the girth of the pelvic outlet can be increased through the motility of the caudal vertebrae, which is important for female animals during parturition. The rectum and anus (Fig. 6-4 and 14ff.), along with the urinary bladder and parts of the urogenital tract located caudal of the bladder, are all located in the **pelvic cavity**. In females, the urethra, the uterine body, the cervix, the vagina and its vestibule are all located here, whereas in the male animal the pelvic section of the urethra, the ductus deferens and the accessory sex glands are found in the pelvic cavity.

The cranial section of the pelvic cavity is lined with **peritoneum** and is therefore referred to as the peritoneal segment of the pelvic cavity. Here, the peritoneum builds multiple caudal pouches, the **pouches** (excavationes) (Fig. 6-15 and 28).

The urinary bladder has **two lateral ligaments**, the ligamenta vesicae lateralia, each of which contains the remnants of an **umbilical artery** (ligamentum teres vesicae). The bladder is attached to the ventral wall by the median vesical ligament. The mesenteries of the female genital tract suspending the two ovaries and the uterus are parts of the **genital plica**, from which the **broad uterine ligament** (ligamentum latum uteri) develops. The organs caudal to the peritoneal pouches are said

to be located in the retroperitoneal part of the pelvic cavity. This section ends caudally at the **pelvic diaphragm**, which is comprised of muscles and fasciae and closes the pelvic outlet. The pelvic diaphragm is built through the:

- paired coccygeal muscles and the paired levator ani muscles (mm. coccygei et levatores ani),
- external and internal fasciae (fascia externa et interna) of the pelvic diaphragm,
- external anal sphincter muscle (m. sphincter ani externus),
- bulbospongiosus muscle (m. bulbospongiosus),
- ischiocavernosus muscle (m. ischiocavernosus), and the
- urethral sphincter muscle (m. sphincter urethrae).

The anus and the end of the urogenital canal perforate the pelvic diaphragm and are bordered by the paired levator ani muscles.

The region between the tail base and the scrotum in male animals and between the tail base and the vulva in female animals is the perineal region (regio perinealis). Located here is the perineum, which is a fibrillary-muscular section of skin be-