



PLASTINATED BODIES FOR ANATOMY LAB

The following plastinated bodies are designed for teaching demonstration in the anatomy course. Specific design can be done if an atlas, drawing or detailed description is provided.

WBGA001

Male Body Showing Superficial Muscles with Vessels and Nerves



Structures shown:

Head --- facial expression muscles, parotid gland and duct, facial nerve.

Neck --- platysma at one side, muscles bordering triangles with vessels and nerves at the other side.

Thorax --- superficial muscles with vessels and nerves.

Abdomen --- external oblique muscles and aponeurosis with vessels and nerves, scrotum dissected to expose both testes and spermatic cords piercing through superficial ring of inguina.

Back --- trapezius, latissimus dorsi, rhomboid and teres muscles with vessels and nerves.

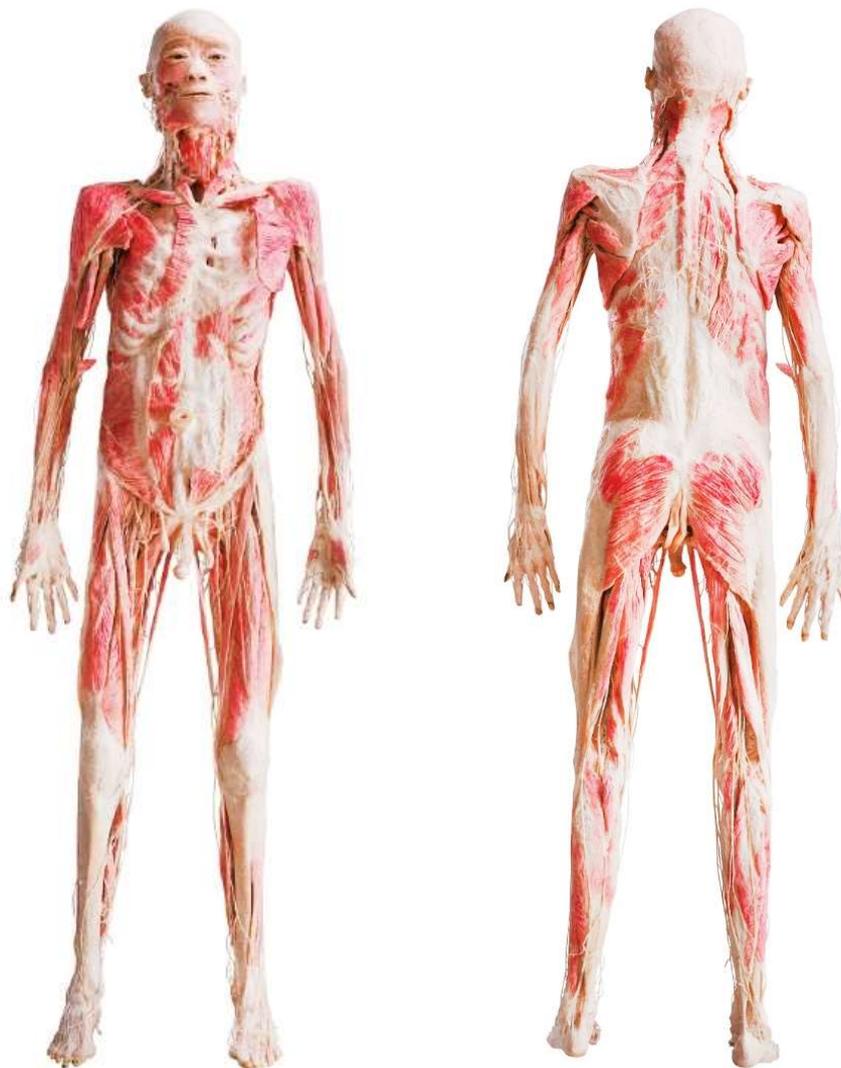
Upper Limbs --- superficial muscles with vessels and nerves.

Lower Limbs --- superficial muscles with vessels and nerves.



WBGA 002

Male Body Showing Deep Muscles with Vessels and Nerves



Structures shown:

Head --- facial expression muscles, parotid gland and duct, facial nerve.

Neck --- superficial muscles at one side, deep muscles at the other.

Thorax --- cut to expose pectoralis minor, rectus abdominis and intercostals muscles.

Abdomen --- cut to expose internal oblique and transverse abdominis muscles.

Back --- cut to expose splenius, rhomboid, teres, serrator, iliocostalis, longissimus and spinalis muscles.

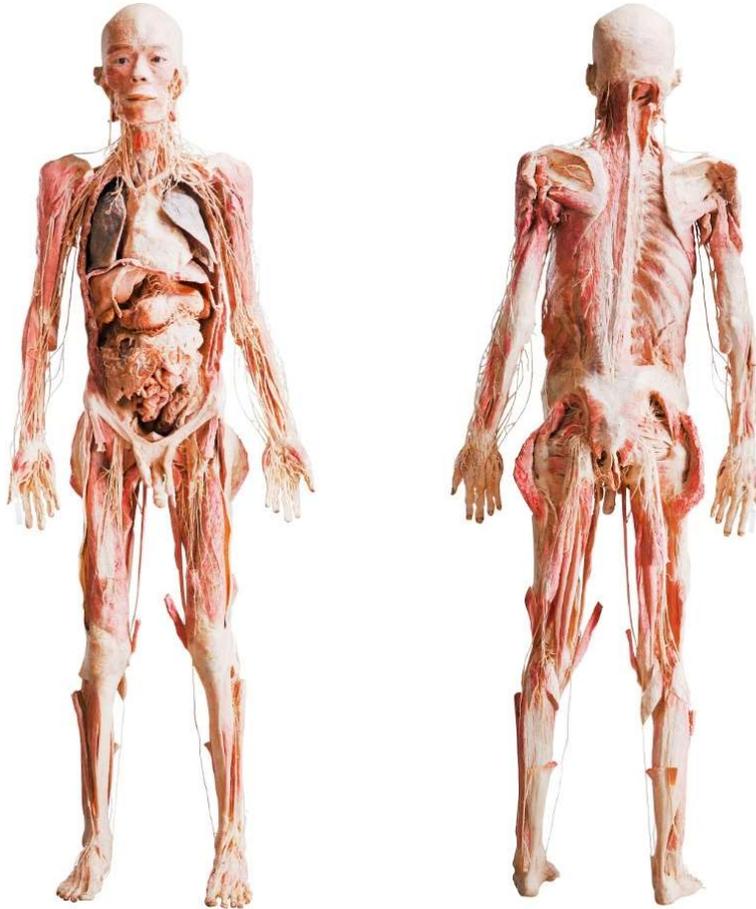
Upper Limbs --- deep muscles with vessels and nerves.

Lower Limbs --- deep muscles with vessels and nerves.



WBGA 003

Male Body Showing Internal Organs *In Situ*



Structures shown:

Head and Neck --- external and internal jugular veins with tributaries.

Thorax --- anterior wall removed to expose lungs, pericardium-enclosed heart and superior vena cava with its tributaries.

Abdomen --- anterior wall removed to expose viscera *in situ*, including liver, stomach, greater omentum and intestines; further dissection to reveal biliary ducts, celiac trunk and branches.

Back --- deep layer of muscles such as iliocostalis, longissimus, spinalis, and semispinalis.

Upper Limbs --- content of axilla, branching of brachial plexus, branches of brachial artery and superficial palmar arch.

Lower Limbs --- remove gluteus maximus and biceps femoris to expose emergence and branching of sciatic nerve; femoral nerve and femoral artery is also reveal.



WBGA 004

Male Body Showing Internal Organs with Blood Supply



Structures shown:

Head and Neck --- external and internal carotid arteries with branches, brachial plexus.

Thorax --- expose heart, aortic arch and other associated arteries, superior vena cava and one lung cut to remove.

Abdomen --- expose celiac trunk, superior mesenteric artery and their branches.

Back --- cut to expose spinal cord, spinal nerves and cauda equine.

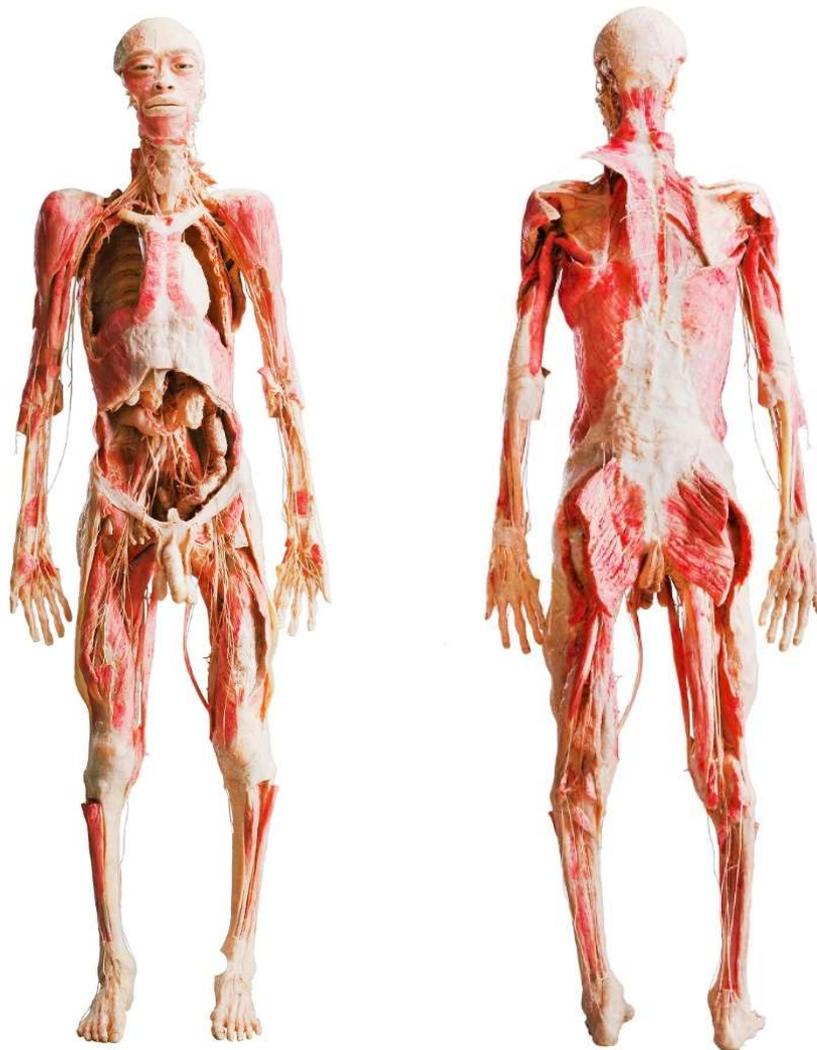
Upper Limbs --- expose passages of brachial artery, radial artery, ulnar artery with accompany nerves; deep palmar arch is also revealed.

Lower Limbs --- remove gluteus medius and others to expose vessels in deeper layer; muscles with vessels are revealed in foot.



WBGA 005

Male Body Showing Vessels and Nerves



Structures shown:

Head --- part of skull removed to expose dura.

Neck --- deep muscles of neck are exposed.

Thorax --- lungs removed to reveal thoracic cavity and mediastinum.

Abdomen --- intestines removed to reveal portal venous system and inferior mesenteric artery with branches.

Back --- deep dissection on scapular region to reveal vessels and nerves.

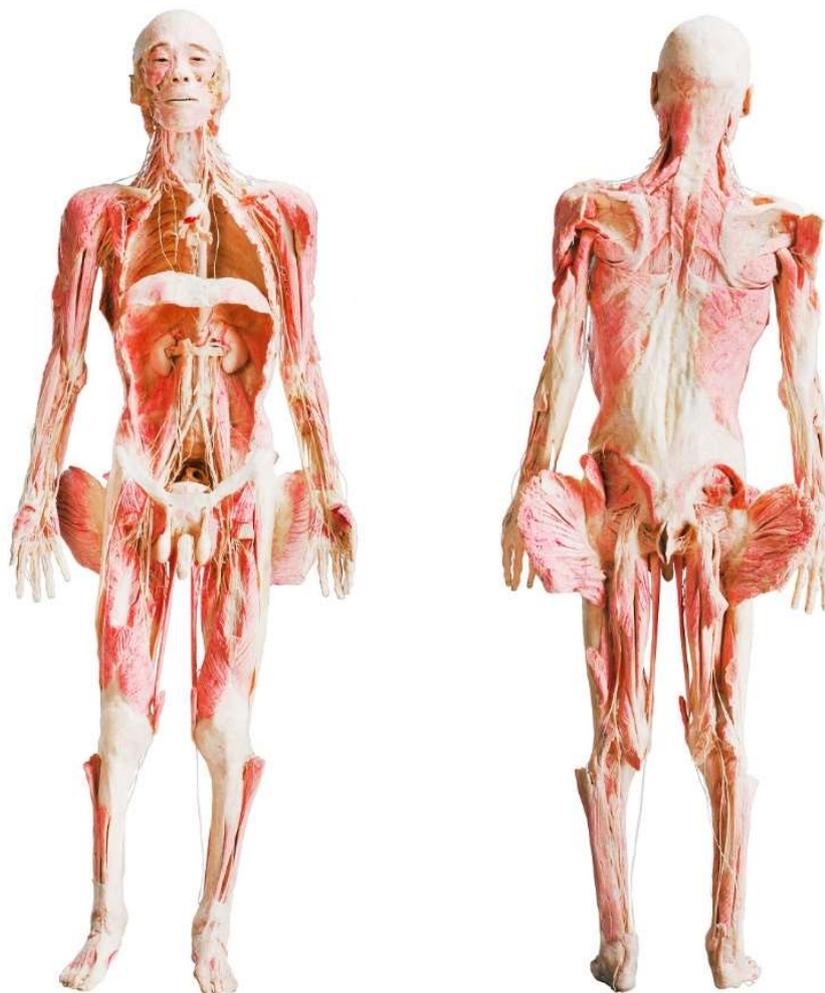
Upper Limbs --- expose passages of vessels and nerves by removing most of muscles.

Lower Limbs --- expose passages of vessels and nerves by removing most of muscles.



WBGA 006

Male Body Showing Posterior Wall



Structures shown:

Head --- expose trigeminal nerve.

Neck --- deep muscles of neck are exposed.

Thorax --- all viscera removed from the cavity to expose structures within the posterior mediastinum.

Abdomen --- digestive organs removed to expose the posterior abdominal wall with attached kidneys; abdominal aorta with branches is revealed.

Back --- deep dissection on scapular region to reveal vessels and nerves.

Upper Limbs --- expose passages of vessels and nerves by removing most of muscles.

Lower Limbs --- expose passages of vessels and nerves by removing most of muscles.



WBGA 007

Ligamentous Body Skeleton

The body is dissected to reveal skeleton, joints and ligaments around the joints. Some deep muscles are remained to show their origins for demonstration the role of muscles during movement.

Joints of Skull ---

Sutures: lamboid suture, coronal suture and sagittal suture.

Temporomandibular Joint: The left articular capsule is integrated and the lateral ligament is remained. The right articular capsule is sagittally cut to show the articular disc and cavity.

Joints of Neck and Trunk ---

Joints of Vertebrae: anterior longitudinal ligament, yellow ligament, interspinal ligament, supraspinal ligament (ligamentum nuchae), intertransverse ligament, anterior and posterior atlatooccipital membranes. One vertebral body is partially removed to reveal intervertebral disc (nucleus pulposus and annulus fibrosus).

Thoracic Joints: The sternum is cut coronally to show the sternocostal joints and sternoclavicular joint (articular disc) on right side. On the other side, intercostals externi, intercostals interni, levator scapulae, longus capitis, longus coli, scalenus anterior, medius and posterior are shown.

Joints of Upper Limbs ---

Sternoclavicular Joint:

Left: intact articular capsule, anterior and posterior sternoclavicular ligaments, interclavicular ligament, costoclavicular ligament.

Right: articular disc.

Acromioclavicular Joint:

Left: intact articular capsule, acromioclavicular ligament, coracoclavicular ligament, transverse suprascapular ligament.

Right: articular disc.

Shoulder Joint:

Left: intact articular capsule, coracoacromial ligament, coracohumeral ligament, tendon of long head of biceps brachii.

Right: articular capsule with a window on the anterior wall, direction of tendon of long head of biceps brachii, articular labrum.

Elbow Joint:



Left: intact articular capsule, radial collateral ligament, ulnar collateral ligament, annular ligament of radius, tendon of biceps brachii and chorda oblique.

Right: articular capsule removed, radial collateral ligament, ulnar collateral ligament, annular ligament of radius.

Forearm:

Left: interosseous membrane of forearm, pronator quadrates, pronator teres, tendons of flexor carpi radialis, tendons of extensor carpi ulnaris.

Right: interosseous membrane of forearm.

Wrist Joint:

Left: intact articular capsule, ligaments around the joint.

Right: transver secarpal ligament. The dorsum of hand is coronally cut to show the articular disc, distal radioulnar joint and intercarpal joints.

Joints of Hand:

Left: intact articular capsules, ligaments around the joints, interossei and lumbricals.

Right: opened articular capsule.

Joints of Lower Limbs ---

Hip Joint:

Left: intact articular capsule, iliofemoral ligament, pubofemoral ligament, ischiofemoral ligament.

Right: opened articular capsule, acetabular labrum, transverse acetabular ligament, orbicular zona.

Knee Joint:

Left: intact articular capsule, tibial collateral ligament, fibular collateral ligament, patellar ligament, popliteal oblique ligament, iliotibial track, tendons of semitendinosus, semimembranosus, gracilis femoris and sartorius.

Right: opened articular capsule, medial and lateral meniscuses, anterior and posterior cruciate ligaments, transverse ligament of knee.

Leg:

Left: tendons of tibialis anterior, tibialis posterior, extensor digitorum, peroneus longus and peroneus brevis, crural interosseous membrane, tendo calcaneus.

Right: crural interosseous membrane, tendo calcaneus.

Ankle Joint:

Left: intact articular capsule, medial ligament, deltoid ligament, anterior and posterior talofibular ligaments, calcaneofibular ligament.

Right: opened articular capsule.



Joints of Foot:

Left: intact articular capsule, ligaments around joints, interossei.

Right: horizontal cut of the dorsum of foot to expose intertarsal joints; opened articular capsule of metatarsophalangeal joints and interphalangeal joints.

WBGA 008

Male Body Showing Muscles

The body is dissected to reveal superficial layer of muscles at one side and deep layer of muscles at the other. Through side-by-side comparison, each muscle can be studied in terms of origin, insertion, and locomotive function. Some accompanying nerves and arteries are also shown. Muscles shown are listed as followed:

Muscles of Facial Expression ---

Left: orbicularis oculi, occipitofrontalis with frontal belly, occipital belly and galea aponeurotica, orbicularis oris.

Right: buccinator, extraocular muscles within the orbit.

Muscles of Mastication ---

Left: masseter, temporalis.

Right: lateral and medial pterygoids (by removing part of mandible).

Muscles of Neck ---

Left: platysma.

Right: sternocleidomastoid, suprahyoid and infrahyoid muscles

Muscles of Thorax and Abdomen ---

Left: pectoris major, serratus anterior, external oblique, superficial inguinal ring, spermatic cord, testis, penis, anterior layer of rectus sheath.

Right: subclavius, pectoralis minor, internal oblique, transverses abdominis, rectus abdominis, posterior layer of rectus sheath, arcuate line, pyramidalis, deep inguinal ring.

Muscles of Back ---

Left: trapezius, latissimus dorsi, thoracolumbar fascia, lumbar triangle, auscultation triangle.

Right: rhomboid major, rhomboid minor, erector spinae, levator scapulae, serratus posterior, splenius capitis, splenius cervicis, semispalpius capitis.

Muscles of Upper Limb Girdle ---

Left: deltoid, teres major, teres minor.



Right: supraspinatus, infraspinatus.

Muscles of Arm ---

Left: biceps brachii, triceps brachii.

Right: brachialis, coracobrachialis, long head of biceps brachii.

Anterior Muscle Group of Forearm ---

Left: brachioradialis, pronator teres, flexor carpi radialis, Palmaris longus, flexor carpi ulnaris, flexor digitorum superficialis.

Right: flexor digitorum profundus, flexor pollicis longus, pronator quadrates.

Posterior Muscle Group of Forearm ---

Left: anconeus, extensor carpi radialis brevis, extensor carpi radialis longus, extensor digitorum, extensor digiti minimi, extensor carpi ulnaris.

Right: supinator, abductor pollicis longus, extensor pollicis brevis, extensor pollicis longus, extensor indicis.

Muscles of Hand ---

Left: abductor pollicis brevis, flexor pollicis brevis, lumbricals, flexor digiti minimi brevis, abductor digiti minimi, tendons of flexor digitorum.

Right: opponens pollicis, adductor pollicis, opponens digiti minimi, interosseus muscles.

Anterior and Medial Muscle Groups of Thigh ---

Left: sartorius, rectus femoris, vastus medialis, vastus lateralis, pectineus, adductor longus, gracilis femoris, tensor fasciae latae, iliotibial tract.

Right: vastus intermedius, adductor magnus, adductor brevis.

Gluteus and Posterior Muscle Group of Thigh ---

Left: gluteus maximus, gluteus medius, biceps femoris, semitendinosus, semimembranosus.

Right: gluteus minimus, piriformis, obturator internus, gemellus superior, gemellus inferior, quadratus femoris.

Muscles of Leg ---

Left: tibialis anterior, extensor digitorum longus, peroneus longus, peroneus brevis, gastrocnemius, soleus, plantaris, retinaculum, extensorum, calcaneal tendon.

Right: popliteus, tibialis posterior, flexor hallucis longus, flexor digitorum longus, extensor hallucis longus, peroneus brevis.

Muscles of Foot Dorsum ---

Left: extensor hallucis brevis, extensor digitorum brevis, dorsal interossei.

Right: dorsal interossei, tendons of extensors brevis.

Plantar Muscles ---



Left: plantar aponeurosis, flexor digitorum brevis, abductor hallucis, abductor digiti minimi, lumbricales, flexor digiti minimi brevis, flexor hallucis brevis.

Right: quadrates plantae, plantar interossei, adductor hallucis.

Display of the above muscles is based on the dissection to reveal the superficial layer at left side and the deep layer at right. Alternative dissection mode can be assigned in accordance with a specific requirement.

WBGA 009

Male Body Showing Viscera

The male body is dissected to cut and make the anterior thoraco-abdominal wall removable. The entire blocks of thoracic viscera including trachea, esophagus, lungs and heart, and abdominal viscera from esophagus to anal canal is cut and make removable. After removing the visceral block, male genital organs *in situ* can be studied. Muscles are dissected to reveal superficial layer of muscles at one side and deep layer of muscles at the other. Organs and structures shown are listed as followed:

Head ---

Superficial layer of muscles are shown at left and deep layer of muscles are shown at right, or the other way.

Neck ---

Partial pharynx, esophagus, median-sagittal cut larynx, some laryngeal cartilages and cricothyroid muscles, trachea, thyroid gland.

Thoracic Viscera ---

Left: bronchial tree; opened pericardium; window-opened right ventricle showing trabecular carneae, papillary muscles, chordate tendineae and atroventricular valves.

Right: right lung kept intact.

Abdominal Viscera ---

Liver, pancreas, stomach, spleen, duodenum, jejunum, ileum, caecum and vermiform appendix, ascending colon, transverse colon, descending colon, sigmoid colon and rectum are kept together in place even removable from the cavity. Parts of stomach and intestines are window-opened to make interior visible.

Thoracic Cavity ---

Right and left phrenic nerves, diaphragm at the bottom, sympathetic trunks, splanchnic



nerves, thoracic aorta with branches, and muscular structure of the posterior thoracic wall.

Abdominal Cavity ---

Diaphragm on the top, both kidneys located *in situ*, ureters, window-opened bladder showing trigone, sympathetic trunks, nerve components of lumbar plexi and lumbosacral trunks, and muscular structure of the posterior abdominal wall.

Male Genital Organs --- (attached with the body)

Testes, spermatic cords (containing vas deferens), seminal vesicles and penis.

Body Trunk ---

Superficial layer of muscles at left and deep layer of muscles at right, or the other way.

Limbs ---

Superficial layer of muscles are shown at left and deep layer of muscles are shown at right, or the other way.

Vessels and Nerves ---

Main arteries and nerves with some branches.

WBGA 010

Female Body Showing Viscera

The female body is dissected to cut and make the anterior thoraco-abdominal wall removable. The entire blocks of thoracic viscera including trachea, esophagus, lungs and heart, and abdominal viscera from esophagus to anal canal is cut and make removable. After removing the visceral block, female genital organs *in situ* can be studied. Muscles are dissected to reveal superficial layer of muscles at one side and deep layer of muscles at the other. Organs and structures shown are listed as followed:

Head ---

Superficial layer of muscles are shown at left and deep layer of muscles are shown at right, or the other way.

Neck ---

Partial pharynx, esophagus, median-sagittal cut larynx, some laryngeal cartilages and cricothyroid muscles, trachea, thyroid gland.

Thoracic Viscera ---

Left: bronchial tree; opened pericardium; window-opened right ventricle showing trabecular carneae, papillary muscles, chordate tendineae and atroventricular valves.



Right: right lung kept intact.

Abdominal Viscera ---

Liver, pancreas, stomach, spleen, duodenum, jejunum, ileum, caecum and vermiform appendix, ascending colon, transverse colon, descending colon, sigmoid colon and rectum are kept together in place even removable from the cavity. Parts of stomach and intestines are window-opened to make interior visible.

Thoracic Cavity ---

Right and left phrenic nerves, diaphragm at the bottom, sympathetic trunks, splanchnic nerves, thoracic aorta with branches, and muscular structure of the posterior thoracic wall.

Abdominal Cavity ---

Diaphragm on the top, both kidneys located *in situ*, ureters, window-opened bladder showing trigone, sympathetic trunks, nerve components of lumbar plexi and lumbosacral trunks, and muscular structure of the posterior abdominal wall.

Female Genital Organs within Pelvic Cavity --- (attached with the body)

Ovaries, uterine tubes, uterus and related ligaments.

Body Trunk ---

Superficial layer of muscles at left and deep layer of muscles at right, or the other way.

Limbs ---

Superficial layer of muscles are shown at left and deep layer of muscles are shown at right, or the other way.

Vessels and Nerves ---

Main arteries and nerves with some branches.

WBGA 011

Male Body Showing Arteries

The male body is dissected to remove blocking tissues and reveal the arterial supply from heart to each part of the body. Main arteries and important branches are reserved with the structures they supply. Arteries in the superficial layer are shown at left and arteries in the deep layer are shown at right, or the other way.

Common Carotid Artery and Branches ---

Left: internal carotid a., external carotid a., superior thyroid a., superior laryngeal a., facial a., lingual a., superficial temporal a., supraorbital a., supratrochlear a., posterior auricular a.



Right: maxillary a., infraorbital a., middle meningeal a., inferior alveolar a.

Subclavian Artery and Branches ---

Left: thyrocervical trunk, inferior thyroid a., ascending carotid a., transverse carotid a., internal thoracic a., intercostals aa., musculophrenic a., costocervical trunk, axillary a., thoracoacromial a., lateral thoracic a., subscapular a., thoracodorsal a., anterior humeral circumflex a., posterior humeral circumflex a., suprathoracic a., brachial a., deep brachial a., superior and inferior ulnar collateral a., ulnar a., recurrent ulnar a., radial a., recurrent radial a., common interosseous a., anterior and posterior interosseous a., superficial palmar arch, common palmar digital a., proper palmar digital a., principal a., of thumb.

Right: vertebral a., ascending carotid a., inferior thyroid a., scapular arterial rete (circumflex scapular a., dorsal scapular a. and suprascapular a.), deep palmar arch, palmar metacarpal a.

Thoracic Aorta and Branches ---

Posterior intercostal a., superior phrenic a., esophageal a., bronchial a., pericardial a.

Abdominal Aorta and Branches ---

Celiac trunk, left and right gastric a., common hepatic a., splenic a., left and right gastroepiploic a., short gastric a., proper hepatic a., gastroduodenal a., superior mesenteric a., jejuna a., ileal a., ileocolic a., right and middle colic a., inferior mesenteric a., left colic a., sigmoid a., superior rectal a., left and right renal a., left and right testicular (or ovarian) a., middle suprarenal a., inferior phrenic a., lumbar a., median sacral a.

Internal Iliac Artery and Branches ---

Obturator a., superior and inferior gluteal a., umbilical a., inferior vesical a., inferior rectal a., internal pudendal a.

External Iliac Artery and Branches ---

Left: femoral a., superior iliac circumflex a., inferior epigastric a., superficial epigastric a., external pudendal a., medial and lateral superior genicular a., medial and lateral inferior genicular a., median genicular a., descending genicular a., anterior tibial recurrent a., anterior and posterior tibial a., peroneal a., dorsal a. of foot.

Right: deep femoral a., perforating a., medial and lateral femoral circumflex a.

WBGA 012

Male Body Showing Nerves

The male body is dissected to expose the location of brain and spinal cord within the cranial cavity and vertebral column. Cranial nerves, peripheral nerve plexuses, main nerves and



branches are revealed with the structures they innervated. Nerves in the superficial layer are shown at left and nerves in the deep layer are shown at right, or the other way.

Head and Neck ---

Left: The brain is remained within the cranial cavity while windows are opened on the skull and 1 cm wide bone is preserved along two sides of the sagittal suture. The lateral wall of orbit is removed to display optic n., lacrimal gland and nerves in the orbit. The sternocleidomastoid is remained. The following nerves are shown: facial n., lesser and greater occipital n., great auricular n., transverse n. of neck, supraclavicular n., supraorbital n., supratrochlear n., lateral br. of accessory n.

Right: The right cerebellar hemisphere is removed. The sternocleidomastoid is remained. The following nerves are shown: trigeminal n. and ganglion, mandibular n., lingual n., hypoglossal n., vagus n., accessory n., ansa cervicalis, glossopharyngeal n., superior laryngeal n., recurrent laryngeal n., brachial plexus.

Trunk ---

All organs in thoracic and abdominal cavities are removed. The vertebral canal is opened to display spinal cord with meninges, roots of spinal nerves and their branches.

Left: Some ribs and intercostal muscles are cut to expose intercostal nerves and their anterior and lateral cutaneous branches, posterior branches of spinal nerves. The supraspinatus, infraspinatus, some intercostal muscles, obliquus abdominis and diaphragm are preserved. Iliohypogastric n. and ilioinguinal n. are also shown.

Right: Some intercostal muscles, obliquus abdominis and diaphragm are preserved. The following nerves and vessels are shown: sympathetic trunk, greater and lesser splanchnic n., phrenic n., vagus n., recurrent laryngeal n., azygos v., superior vena cava, iliohypogastric n., ilioinguinal n., genitofemoral n., obturator n., sacral plexus, femoral n., celiac ganglion, celiac plexus.

Upper Limb ---

Left: The tendon of biceps brachii and triceps brachii are preserved. The following nerves are shown: median n., ulnar n., radial n., axillary n., musculocutaneous n., thoracodorsal n., long thoracic n., medial brachial cutaneous n., medial and lateral antebrachial cutaneous n., superficial and deep branches of radial n., posterior interosseous n., n. of hand.

Right: The biceps brachii, triceps brachii, pronator teres and pronator quadratus are preserved. The following nerves are shown: radial n., anterior interosseous n., deep branch of ulnar n.



Lower Limb ---

Left: The gluteus minimus, piriformis, gemellus superior and inferior, the tendon of obturator externus, Sartorius, vastus medialis and lateralis, gracilis femoris, tibialis posterior and extensor digitorum are preserved. The following nerves are shown: lateral femoral cutaneous n., anterior cutaneous branch of femoral n., saphenous n., posterior femoral cutaneous n., superior, middle and inferior gluteal cutaneous n., common peroneal n., medial and lateral sural cutaneous nn., tibial n., superficial peroneal n., medial, middle and lateral dorsal cutaneous nn.

Right: The gluteus minimus, piriformis, gemellus superior and inferior, the tendon of obturator externus, sartorius, rectus femoris, gracilis femoris, tibialis posterior , peroneus longus and peroneus brevis are preserved. The following nerves are shown: anterior branch of obturator n., superior and inferior gluteal nn., pudendal n., sciatic n., deep peroneal n.



WBGA 013

Male Body Splitted with Intact Viscera



A male body at an anatomical position is cut into halves through the mid-sagittal plane. Section face reveals the relationship between viscera and body cavities. Male urogenital conduction systems is also shown. The body surface is dissected to reveal superficial layer of muscles at one and deep layer of muscles at the other.



WBGA 014

Female Body Splitted with Intact Viscera



A female body at an anatomical position is cut into halves through the mid-sagittal plane. Section face reveals the relationship between viscera and body cavities. Female urogenital conduction systems is also shown. The body surface is dissected to reveal superficial layer of muscles at one and deep layer of muscles at the other.