Back Anatomy
Review of Vertebral Anatomy

Principal Parts of a Vertebra
Review of Vertebral Anatomy

Principal Parts of a Vertebra

Vertebral body
Review of Vertebral Anatomy

Principal Parts of a Vertebra

Transverse process
Review of Vertebral Anatomy

Principal Parts of a Vertebra

Spinous process
Review of Vertebral Anatomy

Principal Parts of a Vertebra

Lamina
Review of Vertebral Anatomy

Principal Parts of a Vertebra

Pedicle
Vertebral Development

Vertebrae as Serial Homologues
Vertebral Development

Vertebral Osteogenesis
Vertebral Development

Vertebral Osteogenesis

Vertebral body
Vertebral Development

Vertebral Osteogenesis

Costal element
Vertebral Development

Vertebral Osteogenesis

Transverse element
Vertebral arch
Results of Vertebral Development

Cervical Vertebrae
Results of Vertebral Development

Thoracic Vertebrae
Results of Vertebral Development

Lumbar Vertebrae
Results of Vertebral Development

Sacral Vertebrae
Vertebral Joints and Ligaments

Cartilaginous Joints
Vertebral Joints and Ligaments

Synovial Joints
Back Anatomy

Movements of the Vertebral Column

Extension versus Flexion
Movements of the Vertebral Column

Lateral Flexion
 Movements of the Vertebral Column

 Rotation
Review of the Pattern

Finally, the Epaxial Muscles

Superficial group
Deep group
Extrinsic Back Muscles

What Are These Muscles?

- Branchial limb muscles
- Hypaxial body wall muscles
- Hypaxial limb muscles
Extrinsic Back Muscles

Hypaxial Body Wall Muscles

Serratus posterior muscles
Intrinsic (Epaxial) Back Muscles

Superficial Spinotransversalis

Splenius capitis muscle
Intrinsic (Epaxial) Back Muscles

Superficial Spinotransversalis

Splenius cervicis muscle
Intrinsic (Epaxial) Back Muscles

Superficial Erector Spinae

Iliocostalis muscle
Intrinsic (Epaxial) Back Muscles

Superficial Erector Spinae

Longissimus muscle
Intrinsic (Epaxial) Back Muscles

**Superficial Erector Spinae**

Spinalis muscle
Intrinsic (Epaxial) Back Muscles

Deep Transversospinalis

Semispinalis muscle
Intrinsic (Epaxial) Back Muscles

Deep Transversospinalis

Multifidus muscle
Intrinsic (Epaxial) Back Muscles

Deep Transversospinalis

Multifidus muscle
Epaxial Muscle Innervation

Posterior or Dorsal Ramus