

**Multifidus** lies deep to semispinalis and erector spinae in the groove between the transverse and spinous processes of the sacrum to C2; it consists of a series of fleshy and tendinous fascicles.

### **Proximal Attachment**

It arises inferiorly from the dorsal surface of the sacrum as low as the fourth sacral foramen (deep to the tendon of erector spinae), the aponeurosis of erector spinae, the posterior superior iliac spine and posterior sacro-iliac ligament. In the lumbar region it arises from the mamillary processes of L1 to L5, in the thoracic region from the transverse processes of T1 to T12 and in the cervical region from the articular processes of C4 to C7.

### **Distal Attachment**

The fascicles pass obliquely supero-medially to attach to the whole length of the spinous processes of C2 to L5. The muscle is arranged in three layers: the **deepest layer** attaches to adjacent vertebrae, the **intermediate layer** to the second or third vertebra above and the **superficial layer** to the third or fourth vertebra above.

### **Nerve Supply**

Multifidus is supplied by the dorsal rami of all of the spinal nerves.

### **Action**

The precise actions of multifidus as well as those of the other short muscles in the back are not fully understood. It is thought that its main role is as a stabilizer of the vertebral column, which is probably of greater functional significance than its role of producing movement. The muscles are thought to extend, laterally flex and rotate the vertebral column, whereby acting as a series of extensible ligaments, adjusting their length to stabilize adjacent vertebrae irrespective of its position.