

# Elements of Technique

## S.A.F.E.

**S.A.F.E.** is an acronym for strength, alignment, flexibility, and endurance. These are all elements that are innate in the study of dance.



### **STRENGTH**

The amount of control and explosive power a muscle group has determines the amount of strength. The length of time one can hold a particular position depends on the amount of strength, as does the height one can jump. Many aspects contribute to the element of strength, including diet and continuous exercise.

### **ALIGNMENT**

Alignment is the correct placement of joints in relation to each other for efficient muscular function. Lax or hyperextended joints (sometimes called double jointed) can cause a break in the natural alignment of the skeletal structure. Since dance is a visual art form, alignment plays a large part in the general aesthetics. The lines of a dancer's body create the visual images the audience is to experience, therefore the proper placement of joints and general skeletal structure is emphasized.

Alignment is also essential to injury prevention. It is important for the dance student to learn basic anatomical structure and motion in order to prevent injury.

### **FLEXIBILITY**

Flexibility determines how far a muscle can be stretched or extended before pain occurs. The pain one feels is the muscle's way of communicating its limits. Performing continuous stretching exercises increases the muscle's limits of flexibility.

### **ENDURANCE**

Endurance has to do with the amount of oxygen required for continuous physical activity. Often in a dance class there is a lot of stop and go because of the necessary explanation of each activity. Therefore it is necessary to regularly participate in a class that is somewhat strenuous and ongoing, in an effort to challenge your physical endurance.

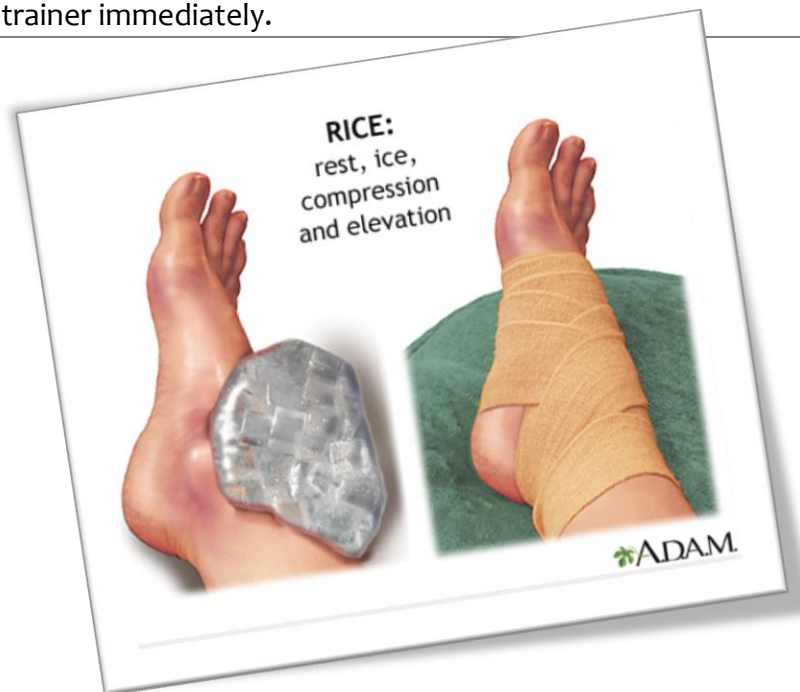
# Common Dance Injuries and R.I.C.E.

**Muscle soreness**—Exercise body (muscle) as soon as possible; take a hot bath or shower to prepare sore muscles for movement.

**Cramp**—gently stretch or massage the cramped area. Stomach cramps may result from eating heavily or consuming too much water before exercising.

**Strain:** overstretching of a muscle, sometimes involving a minor tear of the muscle fibers or adjacent tissue—Treat with RICE

**Sprain:** sudden or violent twisting or wrenching of a joint, causing the stretching or tearing of ligaments and often the rupture of blood vessels with hemorrhage into the surrounding tissues: Treat with RICE. Early movement of joint is also important, but no weight can be put on the sprain—See a doctor or professional athletic trainer immediately.



**R**est: Allow the injured area to rest and stop all activity as soon as you experience pain.

**I**ce: Apply immediately for 8-10 minutes at a time, allowing injured area to regain normal body temperature between icings.

**C**ompression: Wrap the injured body part with an elastic or ace bandage. Wrap should be tight, but not cut off circulation.

**E**levation: Raise injured body part.

**Reduces swelling for quicker healing.**

# Basic Dance Principles

## Shifting the Weight

When the body shifts support from both feet to one foot, or from one foot to the other, a shift of weight must also occur. If balance is to be maintained, the shift of weight must occur without a change of the pelvis, which should remain horizontal throughout the movement. Engaging the abdominal muscles will keep the pelvis in its correct position and the weight lifted out of the legs, thus enabling a smooth shift of weight.



## Pointing the Foot

Whenever the foot is released from the floor, it is either in a pointed or flexed position—never dangling. When pointing your foot:

- Think of a straight line from the top of the knee, to the ankle, to the big toe.
- Keep the toes long and extended. Don't let the toes curl under, or flex upward. Maintain the line.
- Create the greatest arch of the foot by using the instep and muscles of the longitudinal arch.
- **Sickling** your foot is allowing the toe to point inward. Don't sickle—maintain the straight line.
- Practice pointing and flexing while keeping the knees, ankles and toes in line.

## Jumps

The ability to jump high and land softly and smoothly demands the application of important ballet principles. These principles are important not only to help to achieve a beautiful and exciting jump, but are also necessary to prevent injury to knees, ankles, and feet.

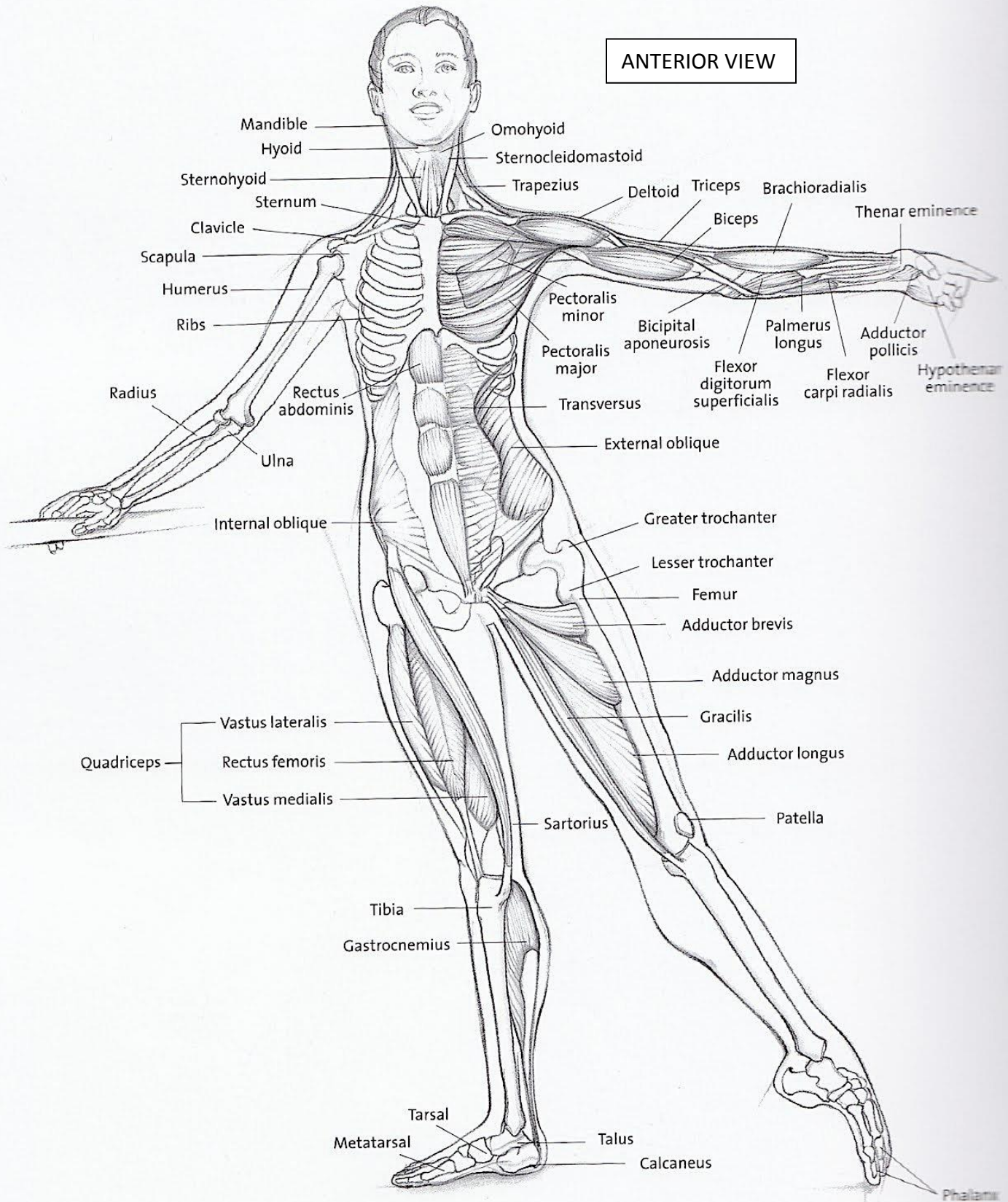
- Begin all jumps from demi plié
- Press off the floor by fully extending (pointing) the feet to attain height.
- The dancer must land from the jump first on the tips of the toes, then balls of the feet, and rolling through to the heels.
- End with a return to the demi plié position.



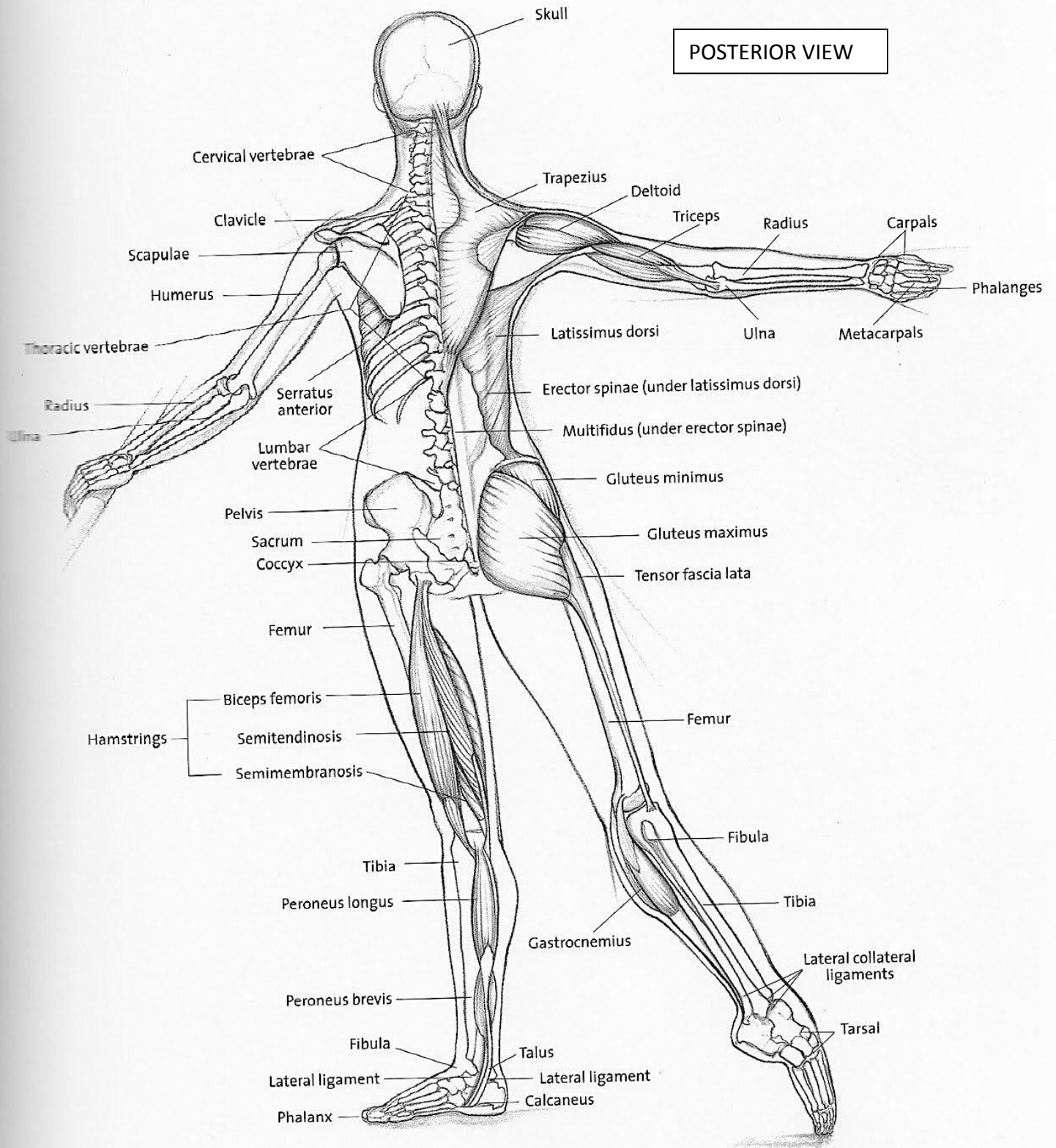
## Turns

The secret to alleviating the dizziness and acquiring the ability to do multiple turns is spotting—head is last to leave the focus of a point and first to return to that point. The focal point should be at or above the eye level and head should remain level (parallel to the ground).

# Musculoskeletal Anatomy Diagrams



POSTERIOR VIEW

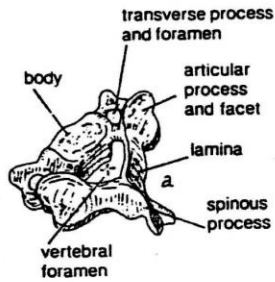


# SKELETAL SYSTEM VERTEBRAE & VERTEBRAL COLUMN\*

1. Color the individual cervical vertebra and the 7 cervical vertebrae in both posterior and lateral views.  
 2. Do the same for the thoracic and lumbar vertebrae as well as the sacrum and coccyx. Avoid the intervertebral foramina (→) seen in the thoracic and lumbar regions of the column, lateral view. Also avoid the 8 foramina in the sacrum, posterior view of the column.  
 3. Color in the intervertebral discs.  
 4. Do not color the skull.

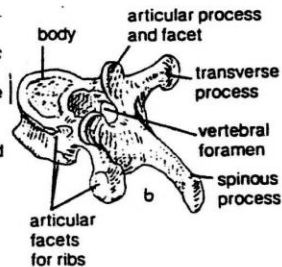
## 7 CERVICAL<sub>a</sub>

This flexible group of cervical vertebrae supports the skull and neck. Holding the head erect develops and maintains its curvature. The 1st and 2nd cervical vertebrae are unique as is the 7th with its prominent spine. The foramina in the transverse processes of C1-C6 transmit the vertebral arteries to the base of the brain. The series of vertebral foramina form a canal for the spinal cord.



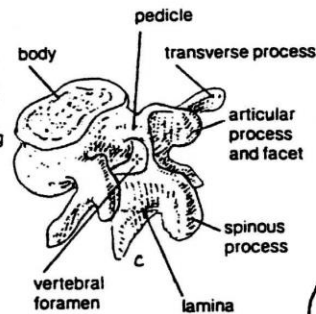
## 12 THORACIC<sub>b</sub>

This rather rigid group of thoracic vertebrae and the 24 ribs with which they articulate support the thorax. Its prominent curvature developed in fetal life. Thoracic vertebrae are characterized by long slender spines, heart-shaped bodies, and facets for rib articulation.



## 5 LUMBAR<sub>c</sub>

These stubby, quadrilateral lumbar vertebrae, the most massive of the column, carry a large share of the body weight, balancing the torso on the sacrum. The lumbar curvature results from walking and standing erect. This vertebral group is quite mobile; when lifting from the floor by flexing this group, great pressure is often put on their discs, which may induce their rupture. This may injure the spinal nerves which pass from the spinal cord through the intervertebral foramina.

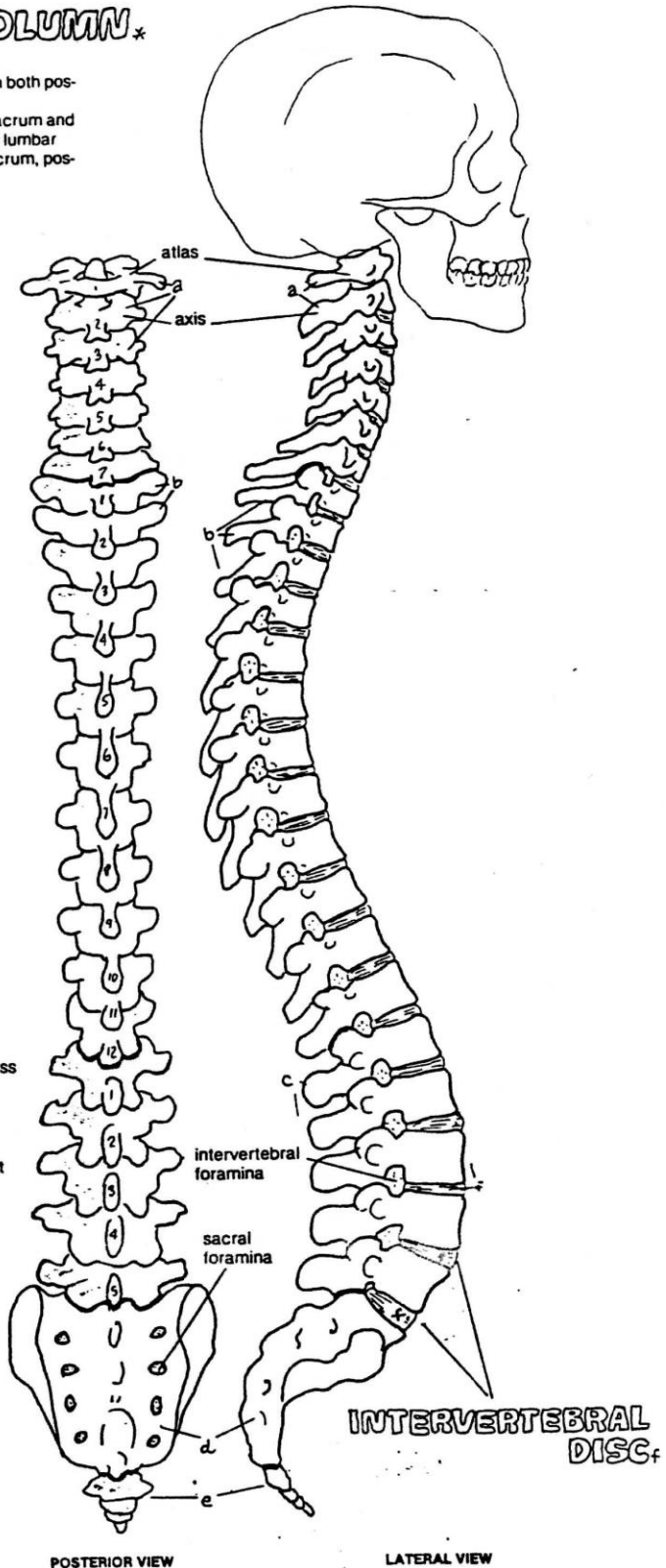


## SACRUM<sub>d</sub>

Five sacral vertebrae fuse to form this single bone. It transmits the body weight to the hip joints via its articulation with the pelvic girdle.

## COCYX<sub>e</sub>

Consisting of 2 to 4 fused coccygeal vertebrae, the functionally insignificant coccyx represents the vestigial tail of our forebears.



# Human Anatomy Vocabulary

Format is **Proper Term:** common name or location info

## Bones

**Spine:** the series of vertebrae forming the axis of the skeleton and protecting the spinal cord

**Cervical Vertebrae:** the top 7 vertebrae

**Thoracic Vertebrae:** 12 vertebrae that make up the upper back and correspond to each pair of ribs

**Lumbar Vertebrae:** 5 vertebrae that make up the lower back

**Clavicle:** collar bone

**Scapula:** shoulder blade

**Humerus:** upper arm bone

**Radius:** the outer and slightly shorter of the two bones of the human forearm (thumb side)

**Ulna:** the inner and longer of the two bones of the human forearm (pinky side)

**Sternum:** breast bone

**Ribs:** the bones in the chest that protect the heart and lungs.

**Pelvis:** hip bone

**Coccyx:** tail bone

**Femur:** thighbone

**Patella:** kneecap

**Tibia:** shin bone. The inner and thicker of the two bones of the human leg between the knee and ankle.

**Fibula:** calf bone. The outer and thinner of the two bones of the human leg between the knee and ankle.

**Tarsals:** ankle

**Metatarsals:** bones between the ankle and the toes

**Carpals:** multiple bones that make up the wrist

**Metacarpals:** bones in the palm of the hand

**Phalanges:** fingers and toes

## Muscles

**Trapezius:** neck and upper back

**Deltoid:** shoulder

**Triceps:** behind upper arm

**Biceps:** front of upper arm

**Pectorals:** chest muscles

Pectoralis Minor

Pectoralis Major

**Latissimus Dorsi:** lower back

**Rectus Abdominis:** stomach muscles

Transversus

**Obliques:** sides of stomach muscles

External

Internal

**Gluteus Maximus:** larger of the 2 rear end muscle

**Gluteus Minimus:** - smaller of the 2 rear end muscle

**Quadriceps:** front of thigh

Vastus Lateralis

Rectus Femoris

Vastus Medialis

Sartorius

**Hamstrings:** back of thigh

Biceps Femoris

**Gastrocnemius:** calf

