

Muscles of the Human Body

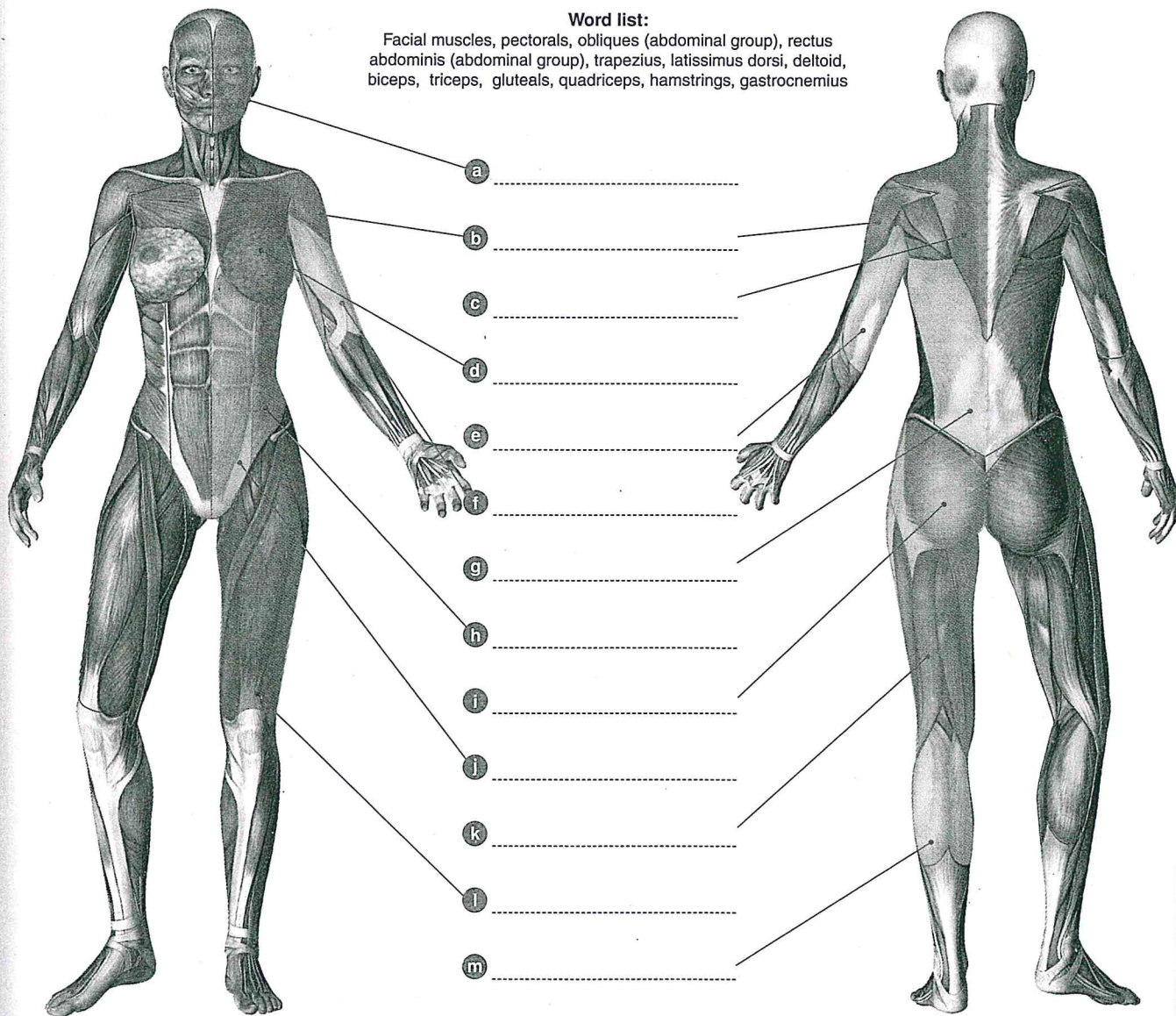
The muscles of the human body occur as groups which work together to achieve an outcome. For example, the raising of the forearm is achieved by the contraction of the biceps brachii and the brachialis. This muscle group is sometimes referred to simply as the biceps. Similarly, the abdominals is used to refer to the

muscle layers covering the body's anterior midsection. Muscle groups are divided between the head, trunk, upper and lower arms, thorax and midsection, and upper and lower legs, each with anterior and posterior muscles. Some common muscle groupings are illustrated below.

Muscle Groups

Word list:

Facial muscles, pectorals, obliques (abdominal group), rectus abdominis (abdominal group), trapezius, latissimus dorsi, deltoid, biceps, triceps, gluteals, quadriceps, hamstrings, gastrocnemius



Head Muscles

Head muscles are divided into the **facial muscles**, which make expressions, and the **chewing muscles**. Facial muscles are inserted into soft tissues (e.g. skin) and enable a range of facial expressions.

Smiling involves about 12 muscles. Major muscles involved include:

- Zygomaticus major raises the corners of the mouth and produces the cheek dimples
- Zygomaticus minor raises the upper edges of the lips
- Levator anguli oris raises the upper lip to show the canine teeth.

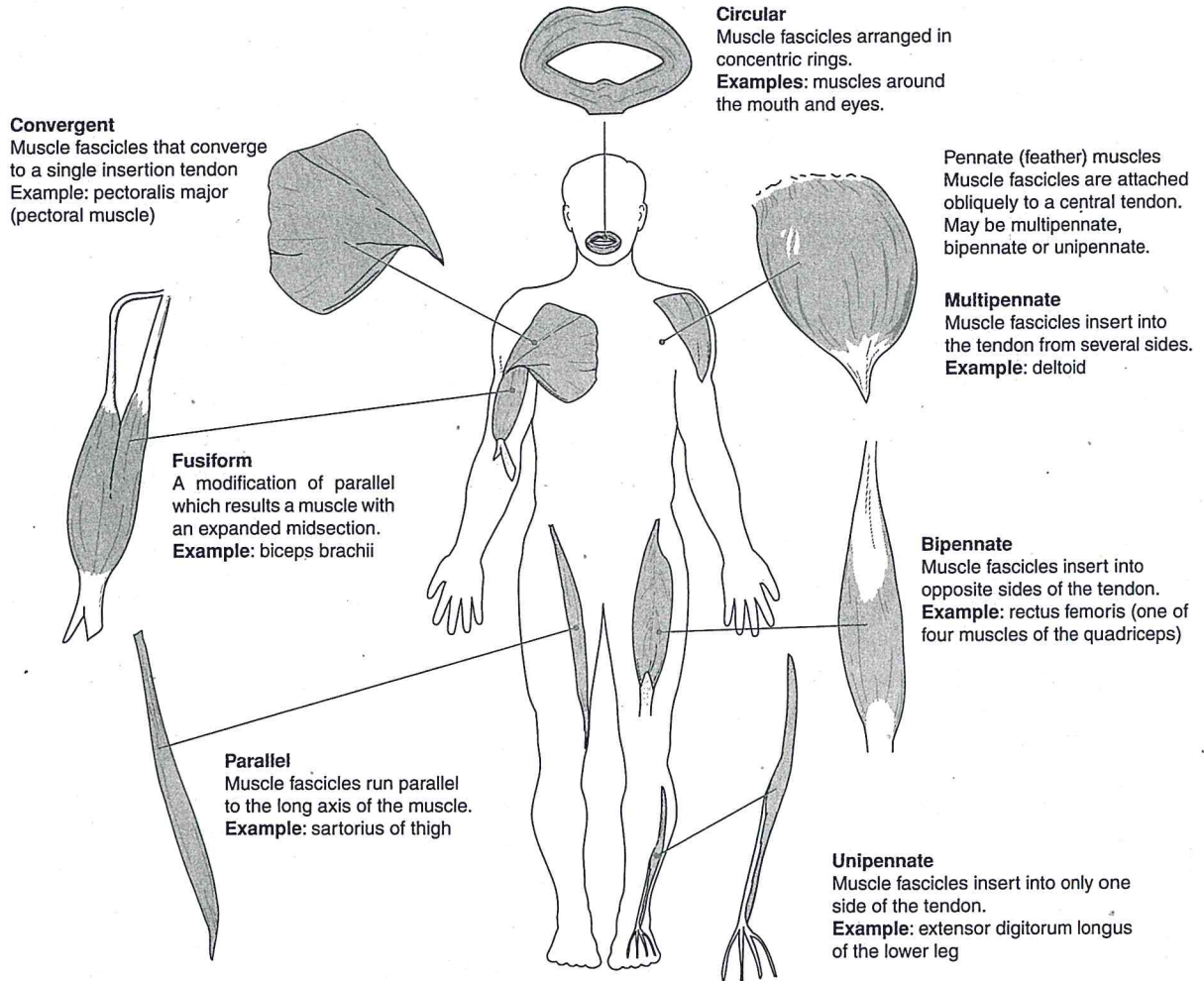
Frowning involves about 11 muscles. Muscles involved include:

- Procerus pulls the skin between the eyebrows down towards the nose producing the "fighters fold"
- Depressor anguli oris pulls the corners of the mouth down to form the lips into an inverted U.



Muscle Fascicles and Muscle Structure

Skeletal muscles consist of **fascicles** (bundles of muscles fibers surrounded by connective tissue layer). The arrangement of fascicles varies, producing a variety of muscle structures.



1. On the previous page, use the word list to label the muscle groups on the figure:
2. Which major muscles group(s) would be used to carry out the following movements:
 - (a) Raise the lower leg (i.e. tibia and fibula) towards the buttocks: _____
 - (b) Bring the upper leg forward (i.e. the femur) as in taking a step: _____
 - (c) Rotate the wrist: _____
 - (d) Raise the arm from the side of the body up over the head: _____
3. What is the unusual feature of facial muscles? _____

4. On the photos on the previous page identify and label the facial muscles mentioned using the following shorthand: zygomaticus major (ZMa), zygomaticus minor (ZMi), levator anguli oris (LAO), procerus (P), depressor anguli oris (DAO)
5. Describe the difference between parallel and fusiform muscle structure: _____

