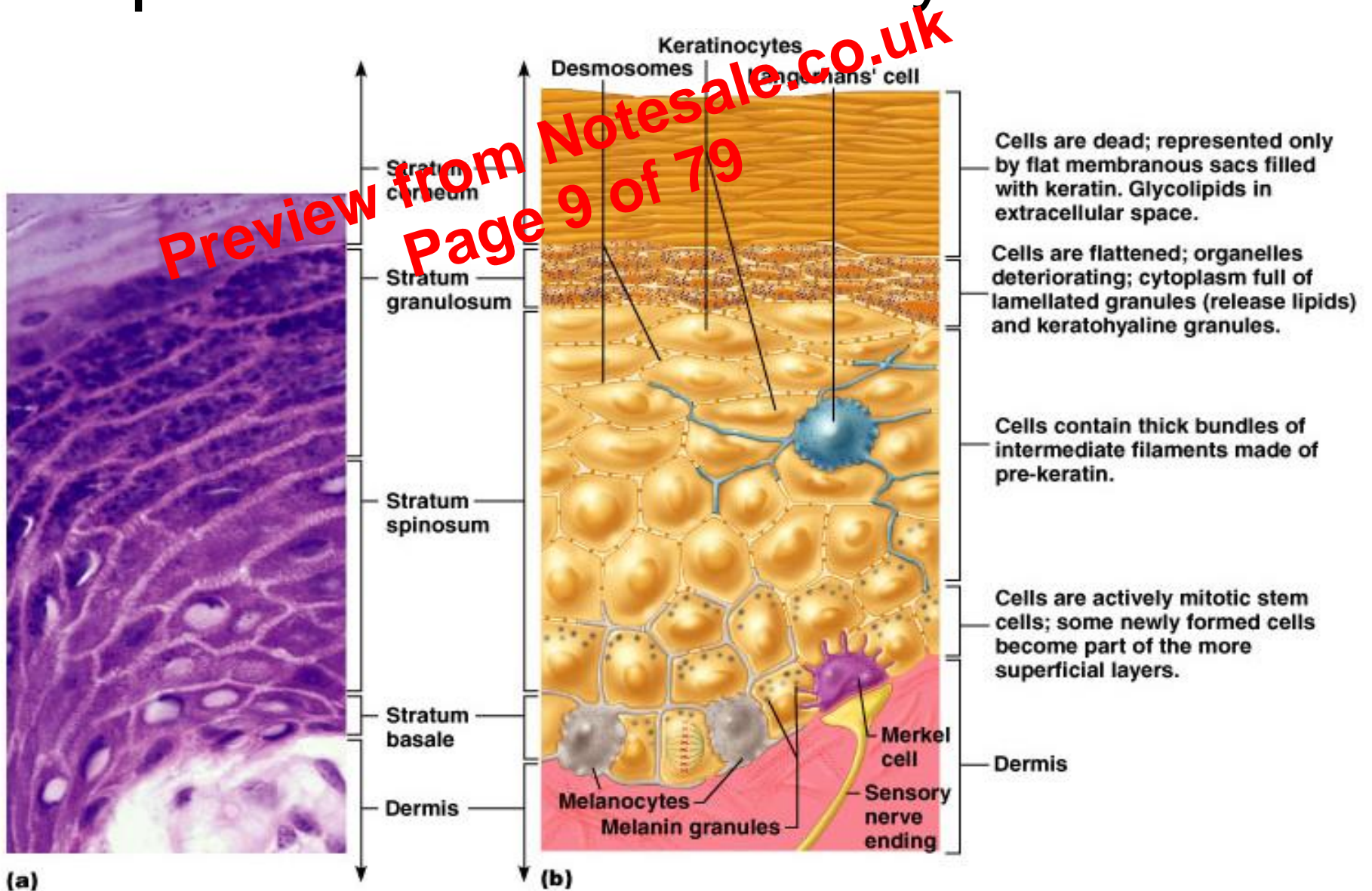


# Epidermal Cells and Layers of the



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Figure 5.3

## STRATUM SPINOSUM

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- As new cells are made in the S. Basale, the older cells get pushed up and become the S. Spinosum
- They are now attached to each other by desmosomes, which are pointy/spiny (“spinosum”)
- They no longer divide in this layer
- They provide the strength to the epidermis

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- Triggered by allergens like soaps, cosmetics, clothing, detergents, jewelry, or sweat.
  - Can be triggered by changes in weather or stress.
  - Tends to run in families.
  - Treatment is lubricant creams daily and steroid creams during outbreaks.

# Hypodermis Conditions

- Hypodermis is not connected to underlying tissue, such as muscle. Therefore, exercising muscle will not burn off fat only in that area. **Fat is burned off equally over entire body.** Losing 10 lbs is like losing ¼" off whole body. More noticeable in face than in hips.
- By the way, **there's no such thing as cellulite.** It is NOT a special type of fat. It's just fat, the same as every other fat. It looks like wrinkled, "orange peel" skin because the collagen fibers on top of it bind it down like a net. **There is no such thing as a cream to get rid of adipose.**

# BURNS: Three types:

- FIRST DEGREE: Minor burn to the epidermis; sunburn
- SECOND DEGREE: Dermis separates from epidermis; blister
- THIRD DEGREE: Hypodermis is burned. (most severe type of burn)
  
- 2° and 3° burns over a large part of the body gives a survival chance proportional to the amount of skin left. **60% burn = 60% chance of dying.**

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# WRINKLES

- Over time, collagen fibers align themselves more and more as they are always being pulled in the same direction: smile, frown.
- **Skin begins to sag because body makes less elastin.** Pinch your grandma's skin. Does it bounce back, or ooze back?
- What can be done about wrinkles? Not much. Face lift clips off extra skin.
- **Creams don't work.** Trying to fix a collagen problem with a cream is like trying to shampoo your carpet by putting the cleaner on the roof!

# BOTOX

- This is a deadly poison which paralyses the muscles, making them sag.
- That releases the tension, and relaxes the skin line.
- In 3 months, new muscle cells are made, so wrinkles come back, and need new injection.

# COLLAGEN INJECTION

- Collagen is injected into hypodermis.
- Can last a couple of years.



# Hair Loss

- Hereditary hair loss and premature greying are some of the most common genetic conditions.
- Hereditary baldness, in men also known as male pattern baldness, is not exclusively a male concern.
- An estimated 25% of women suffer from female pattern baldness but, since their hair loss is diffuse, it is not as easily recognizable as the male form.

## BOILS (Furuncles)

- Unlike pimples, boils are caused by bacteria that enter a gland and invade into the hypodermis.
- They are local infections that swell to a size that is larger than pimples.
- They are not blackheads.

2. **APOCRINE GLANDS** are only in the axilla and pubic regions of the skin (although mammary glands are also modified apocrine glands). They produce a secretion to coat the hairs. The hairs function as a wick to draw the secretions to the surface. These glands also produce a type of protein called a hormone known as **PHEROMONES**.

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- Pheromones function to regulate menstrual cycles of females. If you put several women in one room for months, their menstrual cycles will all start to occur at the same time.
  - They also function for sexual attraction. There is no conscious odor. The smell from the axilla is from bacteria that are attracted by the gland. Expensive perfumes have pheromones. Guess where they get them from? **The anal glands of male cats!** They are designed to attract females.