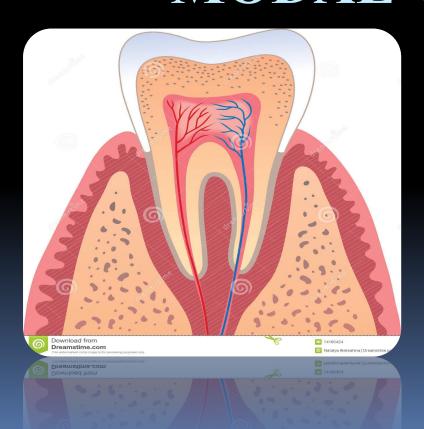
Karaganda State Medical University Chair of foreign languages.

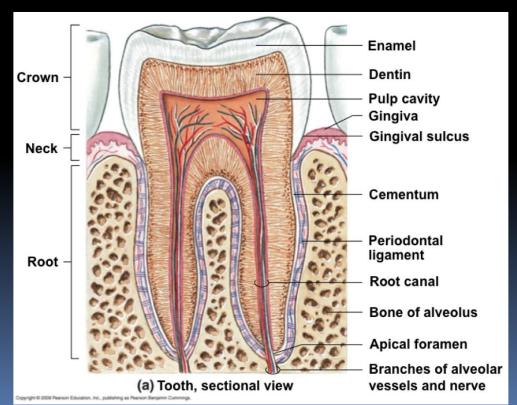
# KSMU THE TOOTH STRUCTURE MODAL VERBS



Made student of 2<sup>nd</sup> curriculum of stomatology specialization:
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#### The Tooth structure

The tooth consists of: crown is the visible part of the tooth, above the gums; root is the part of the tooth under the gums and inside the alveolar bone that keeps the tooth in place; gum margin(neck) is the area between the tooth crown and the root.



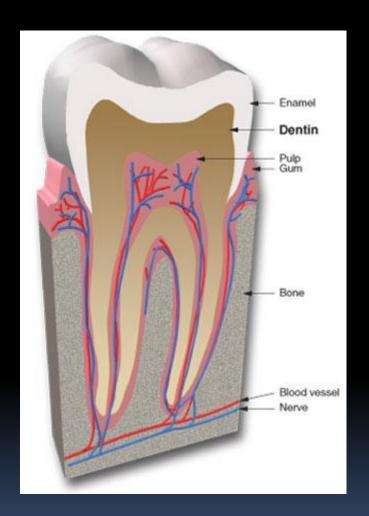
### Enamel, Dentin

Enamel is the hardest and most highly mineralized substance of the body. It is one of the four major tissues which make up the tooth, along with dentin, cementum, and dental pulp. It is normally visible and must be supported by underlying dentin. 96% of enamel consists of mineral, with water and organic material comprising the rest.

Dentin is the substance between enamel or cementum and the pulp chamber. It is secreted by the odontoblasts of the dental pulp. The formation of dentin is known as dentinogenesis. The porous, yellow-hued material is made up of 70% inorganic materials, 20% organic materials, and 10% water by weight. Because it is softer than enamel, it decays more rapidly and is subject to severe cavities if not properly treated, but dentin still acts as a protective layer and supports the crown of the tooth.

#### Cementum

Cementum is a specialized bone like substance covering the root of a tooth. It is approximately 45% inorganic material (mainly hydroxyapatite), 33% organic material (mainly collagen) and 22% water. Cementum is excreted by cementoblasts within the root of the tooth and is thickest at the root apex. Its coloration is yellowish and it is softer than either dentin or enamel. The principal role of cementum is to serve as a medium by which the periodontal ligaments can attach to the tooth for stability. At the cementoenamel junction, the cementum is acellular due to its lack of cellular components, and this acellular type covers at least 3/3 of the root. The more permeable form of cementum, cellular cementum, covers about  $\frac{1}{3}$  of the root apex.

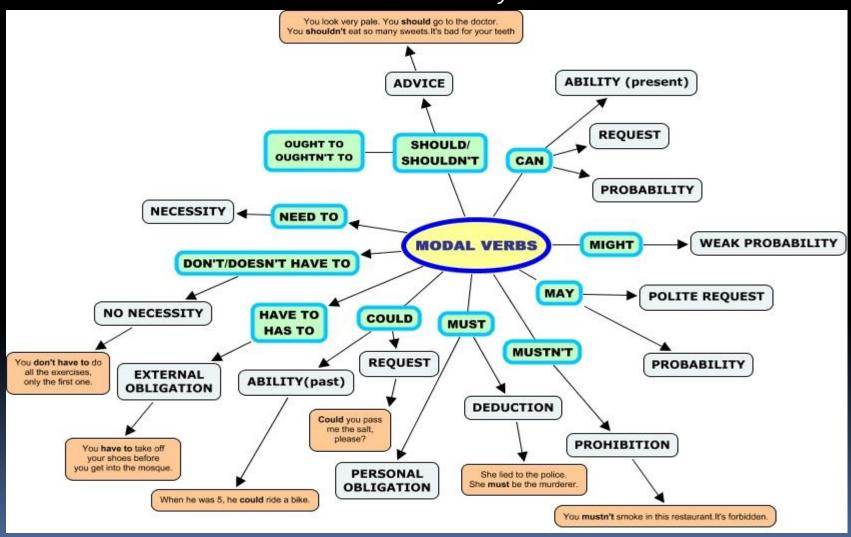


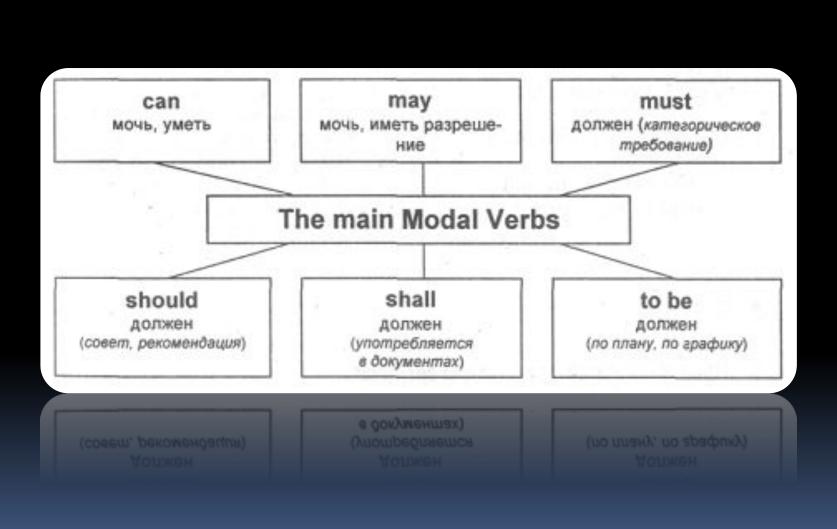
# The dental pulp

• The dental pulp is the central part of the tooth filled with soft connective tissue. This tissue contains blood vessels and nerves that enter the tooth from a hole at the apex of the root. Along the border between the dentin and the pulp are odontoblasts, which initiate the formation of dentin. Other cells in the pulp include fibroblasts, preodontoblasts, macrophages and T lymphocytes. The pulp is commonly called "the nerve" of the tooth.



Modal verbs (can, could, must, should, ought to, may, might, will, would, shall) are modal auxiliary verbs that express ability, necessity, obligation, duty, request, permission, advice, desire, probability, possibility, etc. Modal verbs express the speaker's attitude to the action indicated by the main verb.





## Example:

- May I come in?
- He may know her address dentistry.
- He said you might take the scalpel.
- The girl can to theat teeth.
- Can I help you?
- All children must go to dentist.
- You should be more careful.

# Thank you for your attention.

