

Myofunctional Therapy, Self-test Questions

Question

1. Which of the following were key ideas in the background of myofunctional therapy?

- (1) malocclusion is a “disease of civilization”
- (2) teeth are moved easily by soft tissue forces against them
- (3) relapse can be prevented with soft tissue exercises
- (4) malocclusion often can be corrected by soft tissue exercises

- a. 1 and 2
- b. 2 and 4
- c. 1,3 and 4
- d. 2,3 and 4
- e. all the above

Answer

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Correct answer: e

All of these were key ideas behind the development of myofunctional therapy in the early 20th century. The original version of myofunctional therapy was much broader than the version that became popular in the mid-20th century and to some extent still is advocated now.

Question

2. (A) Edward Angle, in the early days of orthodontics, taught that malocclusion was due to environmental influences that distorted growth because (B) everyone had the potential to be perfect.

- a. A true, B true, A and B related
- b. A true, B true, A and B not related
- c. A true, B false
- d. A false, B true
- e. A and B false

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Correct answer: a

Both statements are true and they're related. In Angle's view, since everyone had the potential to be perfect, imperfections must have arisen after birth because of deleterious effects on the individual.

Question

3. Who was the primary proponent of myofunctional therapy in the United States in the 1920s and 1930s?

- a. Edward Angle
- b. Raymond Begg
- c. Calvin Case
- d. Alfred Rogers
- e. Charles Tweed

Answer

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- *d. Alfred Rogers
- e. Charles Tweed

correct answer: d

Although Angle shared some of Alfred Rogers' thoughts about the etiology of malocclusion, he did not accept the idea that muscle exercises could correct malocclusion in the same way that orthodontic appliances could, nor did any of the other prominent orthodontists of the early 20th century. Alfred Rogers spent a career treating patients largely with muscular exercises, apparently with some degree of success, but had remarkably few active followers.

Question

4. (A) In the 1950s, increasing numbers of orthodontic patients were noted to have an anterior open bite problem because (B) the number of infants who were bottle-fed rather than breast-fed increased.

- a. A true, B true, A and B related
- b. A true, B true, A and B not related
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correct answer: b

Both statements are true, but they are not related—even though Walter Straub and his cohort believed that bottle rather than breast feeding led to tongue thrust swallowing that caused anterior open bite. Does bottle feeding really lead to an increase in tongue thrust swallowing? No data exist to support that idea. Does tongue thrust swallowing cause anterior open bite. Again, no—as a consideration of equilibrium effects on the dentition would predict.

Question

5. Which of the following would create extrusive force on the upper or lower molars?

- 1) Class III elastics
- 2) Class II elastics
- 3) high-pull headgear
- 4) cervical (low-pull) headgear
- 5) headgear to the anterior teeth

- a. 1 and 2
- b. 2 and 4
- c. 1,3 and 4
- d. 2,3 and 4
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- *c. 1,2 and 4
- d. 2,3 and 4
- e. all the above

Correct answer: c

Class III elastics tend to extrude upper molars; Class II elastics tend to extrude lower molars; cervical (low-pull) headgear tends to extrude upper molars. High-pull headgear rarely intrudes upper molars but at least doesn't extrude them, and headgear to the anterior teeth is minimally if at all extrusive to the molars.

Question

6. (A) Speech therapists were strongly encouraged by their professional organization to help orthodontic patients learn to swallow correctly because (B) speech therapists are experts in teaching the proper position of the tongue.

- a. A true, B true, A and B related
- b. A true, B true, A and B not related
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Correct answer: d

The first statement is false, the second is true. At the peak of enthusiasm for myofunctional therapy to teach proper swallowing, the American Speech and Hearing Association expressed concern about speech therapist providing this type of therapy. Although it is true that speech therapists spend a lot of time teaching tongue position for producing speech sounds, that expertise does not transfer well to teaching swallowing. Speech therapists seem to have no more success with tongue thrust swallowing than anyone else.

Question

7. Which of the following are not part of the “logic” of myofunctional therapy?

- 1) tongue thrust swallow is a bad habit
- 2) light tongue pressure creates an open bite
- 3) it's important to break the habit
- 4) if the habit is broken, teaching is unnecessary

- a. 1 and 2
- b. 2 and 3
- c. 1,3 and 4
- d. 2,3 and 4
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Correct answer: b

The “logic” of myofunctional therapy for tongue thrust includes the idea that tongue thrust is a bad habit, and that it's important to break the habit; but myofunctional therapy assumes that it is heavy tongue pressure during swallowing, not light tongue pressure, that creates an open bite; and emphasizes teaching proper swallowing as well as breaking the habit.

Question

8. (A) Tongue pressure during swallowing is more important than tongue posture because (B) there has to be an adequate amount of pressure to produce tooth movement.

- a. A true, B true, A and B related
- b. A true, B true, A and B not related
- c. A true, B false
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Answer

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- c. A true, B false
- *d. A false, B true
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The first statement is false but the second one is true. There has to be an adequate amount of pressure, but the duration of force is much more important than the magnitude of pressure in producing tooth movement—so the pressure can be very low when the duration is long.

Question

9. Which of the following would be effective in changing tongue posture?

- 1) speech therapy to change the elevation of the tongue
- 2) spikes on the lingual surface of lower incisors
- 3) decrease in size of enlarged tonsils
- 4) providing an intraoral target for proper tongue positioning

- a. 1 and 2
- b. 2 and 3
- c. 1,3 and 4
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correct answer: b

Spikes on the lingual of lower incisors do produce a change in tongue posture—as long as the spikes are there, but perhaps not long-term. A decrease in the size of enlarged tonsils provides more space for the tongue, so that it can be positioned more posteriorly without blocking the airway, and this occurs during normal development. Speech therapy does not change tongue posture, and neither does providing a target for tongue positioning. Tongue posture is a physiologic adaptation, not a behavior to be learned.