



DENTAL RADIATION CERTIFICATION

UNIT 3: Exposure Techniques TOPIC C: Bisecting Angle Technique

1. Reminder: The _____ is _____ to the tooth and the receptor in the _____ technique..
2. The critical difference between the two techniques is the placement of the _____.
3. When the receptor is closer up against the teeth, it is now NOT _____ to the receptor. This means that we will have to change the angle of our _____ ray (main beam).
4. When the receptor is NOT parallel to the long axis of the tooth, but we still make the primary beam perpendicular to the tooth, the resultant image will be _____ (stretched).
5. Too LOW of a vertical angle causes _____.
6. When the receptor is NOT parallel to the long axis of the tooth and we make the central ray perpendicular to the receptor, the resultant image will be _____ (squatty).
7. Too HIGH of a vertical angle causes _____.
8. The _____ is a line you create in your head that is half way between the angle of the _____ in the mouth and the long axis of the tooth.
9. In the Bisecting Angle Technique, the PID is at a _____ angle (perpendicular) to the imaginary bisector.
10. The term "bisect" means to _____. So we are cutting in half the two angles: the line of the long axis of the tooth and the line of the _____.
11. Horizontal angulation changes when using bisecting angle technique instead of paralleling. True False
12. If the sun is just coming up in the sky (and is therefore LOW on the horizon), shadows will be long / short (circle one) on the ground.
13. Too LOW of a vertical angle causes _____.
14. If the sun is HIGH in the sky, shadows will be long / short (circle one) on the ground.
15. Too HIGH of a vertical angle causes _____.
16. Correct angulation of the primary beam is to place it at a right angle to the _____.

I forgot to mention that there is a good article on our website in the resources regarding the "Shadowcasting Principle." If this concept is not solid in your mind, you might want to pause right here and check it out.

17. Which technique provides the most accurate image? _____
18. The suggested angles for each PA using the bisecting angle technique is always accurate. True False
19. The XCP kit could be used for both the paralleling technique and the bisecting angle technique. True False

20. The most commonly used holder for the bisecting angle technique is the _____.
21. A stable bite block is DISPOSABLE and can only be used when the receptor is _____.
22. NEVER have the patient hold the _____ in the mouth. It will slip, move, bend. But also you will _____ the _____ unnecessarily.
23. Why use a holder at all? We might as well just have the patient bite on the receptor and severely increase the angle of the PID. True False Explain: _____

24. Distortion means: _____
25. Which technique causes the most distortion? Paralleling Bisecting Angle (circle one)
26. If your patient does not bite down all the way on the biteblock, there will be extra space at the _____ and the _____ may be cut off the edge of the image. If that happens the image will be undiagnostic and will have to be retaken.
27. Which error typically is causes us to have to RETAKE the x-ray (it is undiagnostic)? Paralleling Bisecting
28. A 16" target-film distance is recommended for the _____ technique.

Match the common radiographic error with the correct definition.

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|--------------------------------|-------|---|
| A. Foreshortening | _____ | Film in the mouth backwards |
| B. Elongation | _____ | Totally black image |
| C. No root tips | _____ | The receptor is placed too mesially/distally |
| D. Dropped corner | _____ | Underexposed |
| E. Receptor placement error | _____ | Clear/light blue image |
| F. Too light of an image | _____ | Incorrect horizontal angle |
| G. Too dark of an image | _____ | Too low of a vertical angle causes . . . |
| H. Overlapping | _____ | Overexposed |
| I. Conecutting | _____ | Patient movement or reticulation |
| J. No exposure on a film | _____ | Too high of a vertical angle . . . |
| K. Complete exposure of a film | _____ | Occlusal plane and top of receptor are not parallel |
| L. Herringbone pattern | _____ | Receptor not deep enough in the mouth |
| M. Double exposure | _____ | Using the same film for two exposures |
| N. Blurred image | _____ | The center of the primary beam is not aimed at the center of the receptor |

NEXT UP: Unit 3 Topic D: Panoramic Radiography