

CLINICAL AID

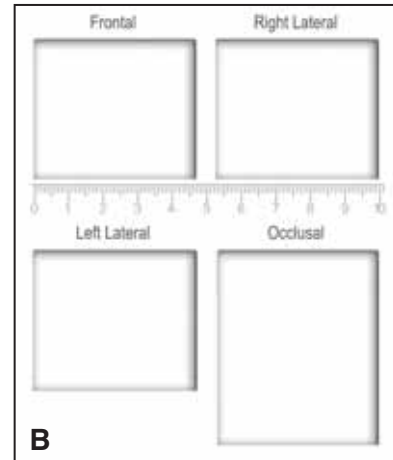
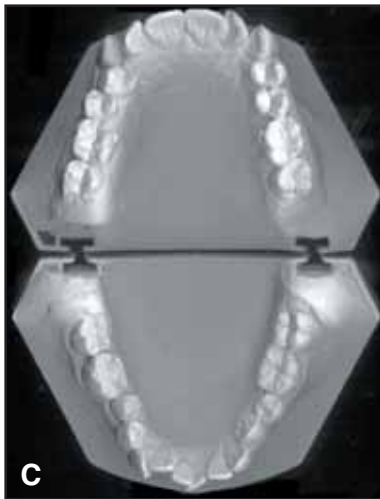
Imaging of Plaster Casts with a Flatbed Scanner

As an alternative to conventional photography, orthodontic plaster casts can be imaged with a simple flatbed scanner for purposes of record keeping, patient education, and research. The use of preformed Dentaaurum plastic model bases* simplifies and standardizes the preparation of the casts. Several sets can be scanned simultaneously to obtain right and left lateral, frontal, and occlusal views.

Procedure

The flatbed scanner used in my office is the UMAX PowerLook II.** After the scanning surface is cleaned, the casts should be properly positioned to avoid subsequent image editing for the correction of alignment problems (A). A template allows rapid positioning of the casts on the scanner bed (B). Blu-Tack,** a reusable, putty-like, pressure-sensitive adhesive, can be used to position casts for the frontal view. Label stickers with patient names can be placed with the models to avoid confusion.

In the prescan stage, settings such as brightness and contrast can be adjusted and saved for future use. Scanning can be performed in either color or grayscale mode, since the casts are usually made of white plaster. The recommended scanning resolution is 300dpi for printing and



72dpi for screen viewing and Internet applications.

Once the preview image is acceptable, a final scan is performed (C). The cast images can

*Dentaaurum, 10 Pheasant Run, Newtown, PA 18940; www.dentaaurum-us.com.

**Techville, Inc., 11343 N. Central Expressway, Dallas, TX 75243; www.umax.com.

***Bostik, 51-71 High St., Thomastown, Victoria 3074, Australia; www.blutack.com.

be saved as a single file (if they all belong to the same patient) or cropped and saved separately with appropriate file names.

This alternative imaging method eliminates the need for expensive digital cameras, macro lenses, lighting systems, and table-top setup. It automatically standardizes the magnification factor, and the ability to scan multiple sets of models simultaneously saves considerable staff time. □

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