Clinicians and their lab partners know that the fabrication of a well-fitting restoration depends on the quality of the impression taken in the dental office. The traditional method, using any variety of impression material, remains the most commonly used today. Two newer methods for capturing intraoral anatomy and preparations – intraoral scanning and digital desktop scanning – offer the speed and accuracy associated with digital technologies.
Traditional impressions require an effective impression material that flows easily, results in minimal tissue displacement, has a fast setting time, minimizes shrinkage, resists tearing, and stands up to disinfectants. Such materials can produce highly accurate, dimensionally stable impressions that will in turn result in excellent restorations. The tried-and-true method of taking physical impressions is a relatively quick procedure, but it must be repeated if margins are not properly captured. There are also shipment costs associated with traditional impressions.

Intraoral scanners offer an immediate 3D image that can be enlarged for the clinician to review and sent digitally to the lab or used chairside for design. This method, which also allows for quick rescans or touch-ups when necessary, eliminates model fees and shipping costs. However, digital scans are not ideal for every clinical case, and there is an initial investment cost and learning curve.

With digital desktop scanning, a physical impression is taken, scanned, and sent digitally to the lab, eliminating the cost of shipping the impression. This method may require the use of scannable impression material or powder. Though digital desktop scanning is a less expensive entry into the world of digital scanning, its success depends on the quality of the impression.

While digital scanning technologies offer advantages for streamlining workflows and increasing efficiency in the practice, highly detailed and reproducible traditional impressions remain the workhorse of the restorative process in many practices today.