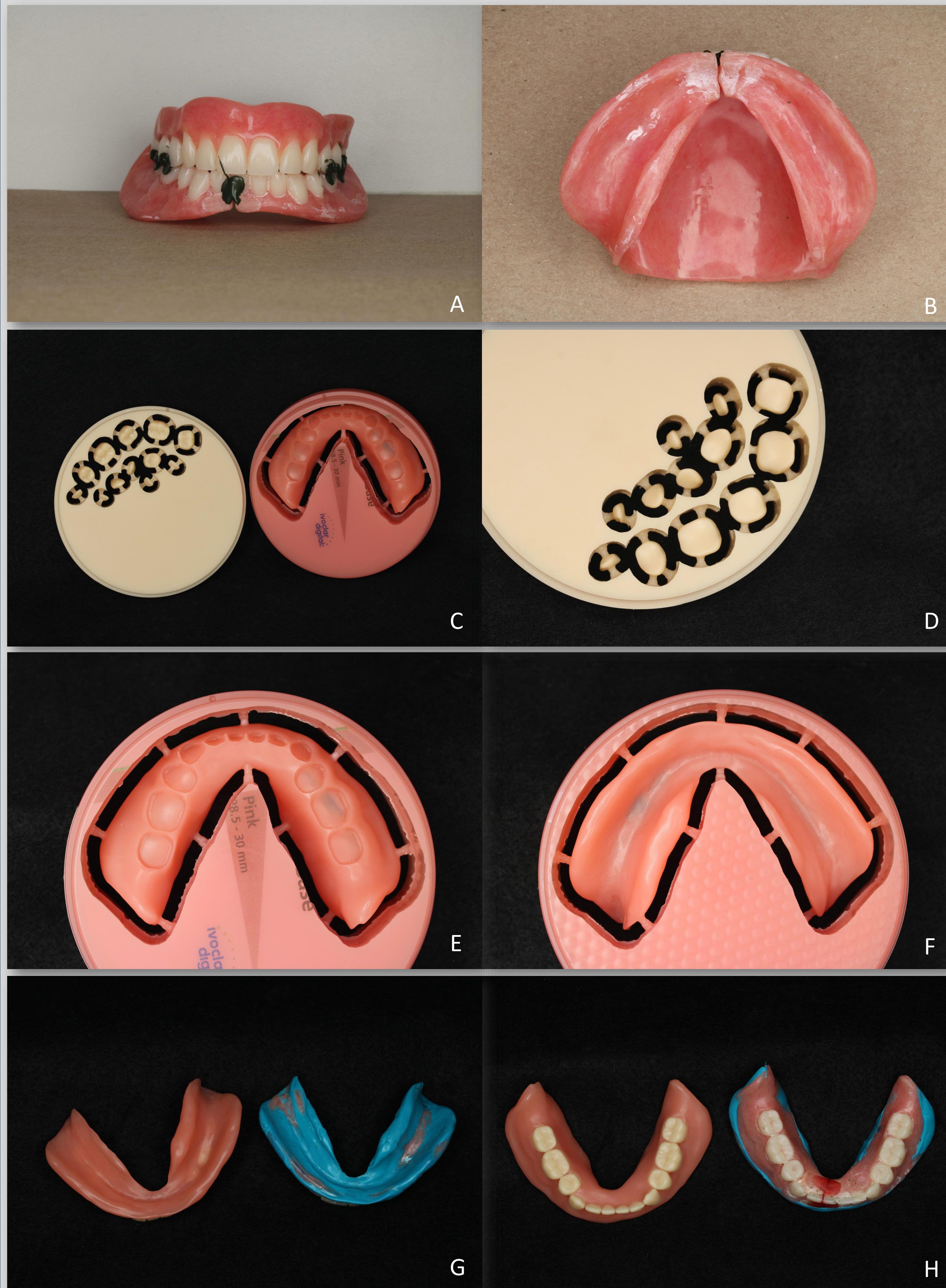




## Case Report: A Digital Approach to Replacing a Preexisting Irreparable Denture

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**Introduction:** Long standing patient of OSU presents with a one year old denture that he dropped on the floor. Patient adjusted and tried to repair with super glue. Upon evaluation and trying to remove the cyanoacrylate with acetone the two pieces would not interdigitate together perfectly. Thus, a new denture was proposed. Due to patient finances and dental insurance, a milled denture was proposed for its cost effectiveness.

**Procedure:** The fractured mandibular denture was hand articulated to the maxillary denture as the teeth would intercusate well. The pieces were fixated with greenstick wax (Fig A, B), and the area of the fracture was bridged with GC Pattern resin. From there the lower denture was relined with Light Body PVS (Fig G, H) and a closed mouth impression was made as the purpose was to not extend the borders of the preexisting denture.

An intraoral scan was made with both dentures to obtain a bite registration. A benchtop scan was made of the mandibular denture + closed mouth impression.

The denture copy module within **3Shape** was used to smooth the intraoral scan and separate the teeth from the denture base. From here the teeth were milled in A2 PMMA and the denture base was milled using the ivotion pink base (Fig C-F). The teeth and denture base were bonded with flowable resin, and the prosthesis delivered. PIP and Sorensen paste was used to evaluate tissue fit and border extensions, minor adjustments were required.

**Results/Conclusion:** The replicate denture shows very similar characteristics to the preexisting denture. The fit and comfortability was verified with a multiple follow-ups without any complaint from the patient. The patient was very satisfied with the outcome. Given the unique circumstance to help the patient; this method seems to be a quick and feasible way to copy and fabricate a PMMA denture.

