KRYSTAL STARCHER and KRISTY HENSON, Forensic Science, Fairmont State University, Fairmont, WV, 26554. Analysis of metabolic bone disease in 3D printed skeletal remains.

Analyzing skeletal remains gives researchers the ability to reconstruct an individual's quality of life. Studying metabolic bone disease in skeletal remains is one way researchers are able to learn how a particular bone disease may have impacted the individual in their daily life. The purpose of this study is to analyze 3D printed skeletal remains and determine if any metabolic bone disease is present or visible. The skeletal remains were extracted from CT files and 3D printed on a ZPrinter. An osteological analysis was previously conducted to determine the age and sex of the individual. To determine if the skeletal remains have any metabolic diseases a macroscopic examination was completed on the available skeletal material. Any sign of bone abnormality will be noted and observed to determine what type of metabolic disease it may be present. Preliminary results suggest that the 3D printed remains may not be of high enough quality to determine if metabolic bone diseases are present.