Sternal foramina may pose a great hazard during sternal puncture, due to inadvertent cardiac or great vessel injury. They can also be misinterpreted as osteolytic lesions in cross-sectional imaging of the sternum. On the other hand, variant xiphoid morphology such as bifid, duplicated, or trifurcated may be mistaken for fractures during imaging. The distribution of these anomalies differs between populations, but data from Africans is scarcely reported. This study therefore aimed to investigate the distribution and frequency of sternal foramina and variant xiphoid morphology in a Kenyan population. Eighty formalin-fixed adult sterna (42 males [M], 38 females [F]) of age range 18-45 years were studied during dissection at the Department of Human Anatomy, University of Nairobi. Soft tissues were removed from the macerated sterna by blunt dissection and foramina recorded in the manubrium, body, and xiphoid process. The xiphisternal ending was classified as single, bifurcated (2 xiphoid processes with a common stem), or duplicated (2 xiphoid processes with separate stems). Results were analyzed using SPSS version 17.0. Foramina were present in 11 specimens (13.8%): 7 M, 4 F. The highest frequency was in the sternal body (n = 9), where they predominantly occurred at the 5th intercostal segment. Xiphoid foramina were present in 2 specimens (both males) (2.5%), while manubrial foramen was not encountered. The xiphisternum ended as a single process in 64 cases (34 M, 30 F) (80%). It bifurcated in 10 cases (5 M, 5 F) (12.5%), and duplicated in 6 cases (4 M, 2 F) (7.5%). There were no cases of trifurcation. Sternal foramina in Kenyans vary in distribution and show higher frequency than in other populations. These variations may complicate sternal puncture, and due caution is recommended. The variant xiphisternal morphology may raise alarm for xiphoid fractures and may therefore be considered a differential.