

# Exploring the Knowledge Structure of “Breast Reconstruction”

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## Abstract

We present the application of "meta-search engine" in evidence-based medicine (EBM) by online cluster analysis of PubMed literature. The methodology would be especially beneficial to "evidence-based plastic surgery". In addition to the initial aim of splitting the diverse documents into organized relevant and homogeneous document groups (clusters), knowledge discovery of new or neglected sub-topics and selection of key phrases based on information technology are stressed. PubMed query on "breast reconstruction" in the recent 2 years yielded 496 articles, which was processed by the online tool. Nine larger clusters comprise of about 70% of the literature, which is "skin-sparing", "tissue expander", "DIEP flap", "nipple", "latissimus dorsi", "perforator flap", "TRAM flap", and "internal mammary vessels". The details of the knowledge structure were further explored, and a new finding of the "Chinese women" cluster was described.