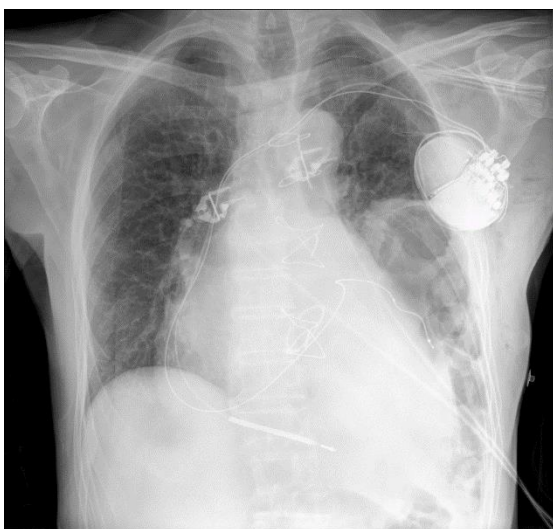


Boost Lines

Boost Lines is an image-processing algorithm to emphasize and enhance the visibility and contrast of tubes and catheters in chest images.

Boost Lines algorithm improves the visibility of medical tubes and catheters in chest X-ray images, generating a complementary image. This companion image is always paired with the original since it is not suitable for diagnostic interpretation. Companion view must not be used alone for diagnostic purposes, but it can be very helpful for visualizing tubes and catheters placement.

Boost Lines is relevant especially for ICU (Intense Unit Care) context and in general for bedridden patients.



**Chest X-ray image without
Boost Lines algorithm**



**Chest X-ray image with
Boost Lines algorithm**

Post Processing algorithm

Boost Lines is applied to a standard chest X-ray as a post-processing solution.

Boost Lines algorithm works by decomposing image into different frequencies bands and by performing custom processing algorithms over them, achieving an enhancement of conspicuity for relevant structures such as tubes and catheters, while at the same time minimizing noise.

The additional image alone is not suitable for specific diagnostic purposes, but it is intended to enhance the visualization of tube and catheter structures and thus, giving a better information about their positions and placement. Both images (the original and the processed) are delivered to PACS for further interpretation by radiologists.

Features and advantages

- Enhancement and better visualization of tubes and catheters structures without the need for further action
- Automatic windowing combined with the Boost Lines algorithm results in significantly improved visibility in most of the case, compared to the standard image
- Post-processing application without additional x-ray exposure
- Original image remains always available for diagnostic purposes