Accurate diagnosis of thoracic diseases from chest radiographs is a challenging task that can lead to diagnostic errors and negative patient outcomes. This study introduces two novel hierarchical multi-label classification methods, leveraging the taxonomy of pathologies to boost both the accuracy and interpretability of disease classification. These methods cater to scenarios where ground truth is accessible (termed ``loss") as well as when it isn't (termed ``logit"). By utilizing disease taxonomy, the proposed methods acknowledge the interrelationships among diseases, thereby enhancing their adaptability to new tasks. The ``logit" method offers ease of integration with existing pre-trained models, eliminating the need for re-optimization and ensuring extensive applicability. Conversely, the ``loss" method modifies the loss function during the training phase, thus providing an avenue for integration into the current training process. The proposed techniques were evaluated on three publicly accessible, diverse chest radiograph datasets, namely CheXpert, PadChest, and NIH Chest-Xray14 as well as various statistical tests. The results underpin the enhancement in accuracy and interpretability these methods provide in the diagnosis of thoracic diseases in chest radiography. This approach has the potential to promote an accurate and efficient diagnosis by providing an additional layer of decision support to radiologists, ultimately leading to better patient outcomes.