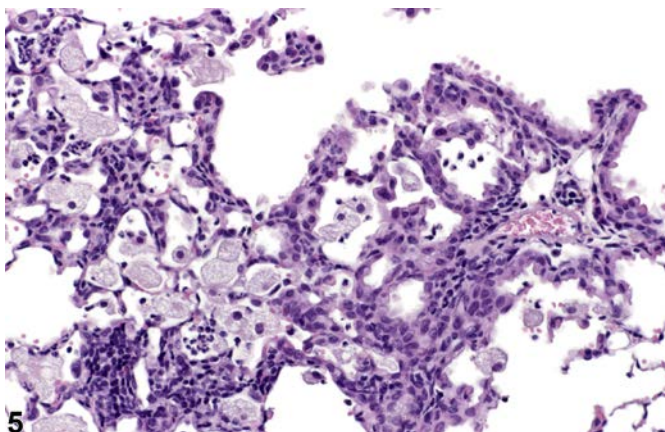
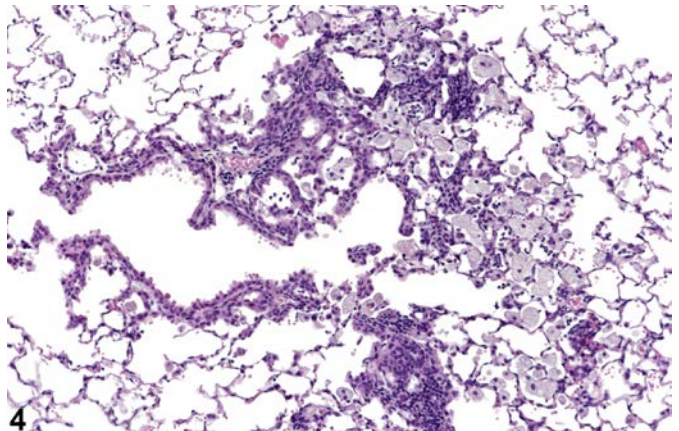
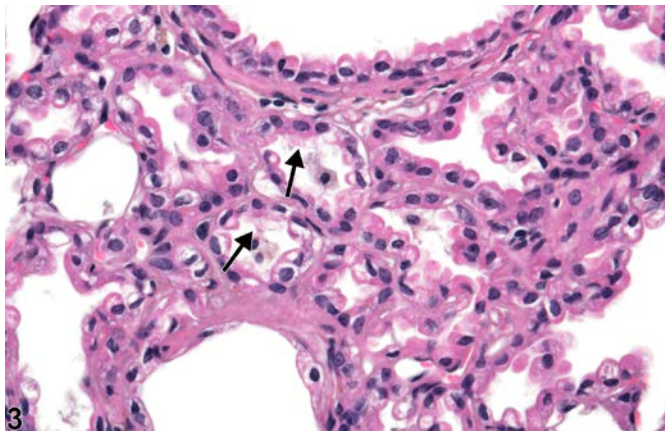
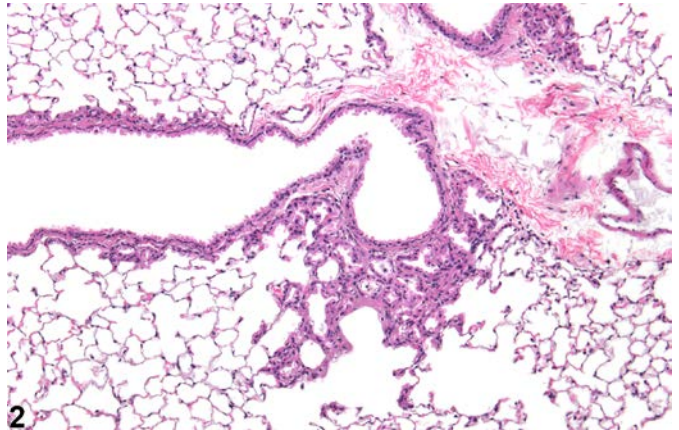
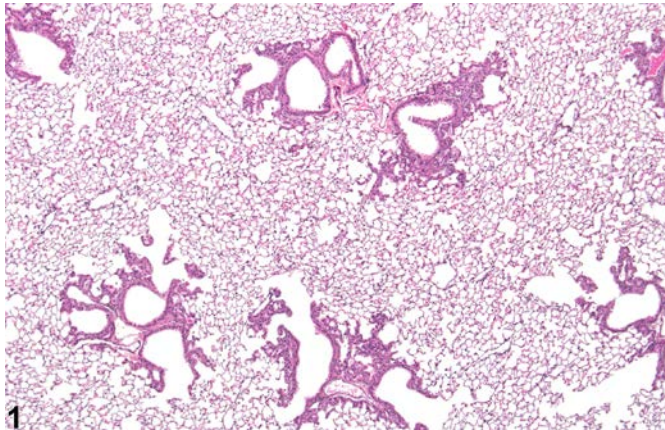
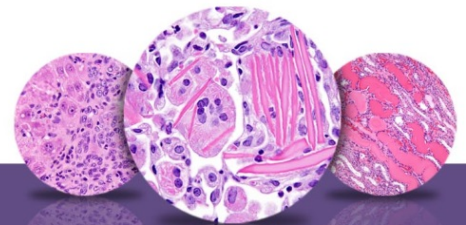


# NTP Nonneoplastic Lesion Atlas

## *Lung, Alveolar/Bronchiolar Epithelium – Hyperplasia*





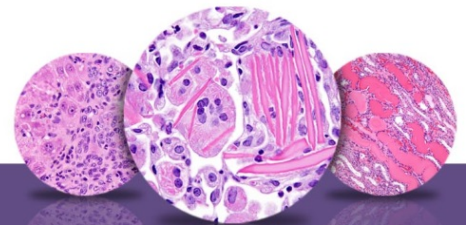
## NTP Nonneoplastic Lesion Atlas

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**Figure Legend:** **Figure 1** Lung, Alveolar/bronchiolar epithelium - Hyperplasia in a male B6C3F1/N mouse from a chronic study. This low-magnification image shows the distribution of the lesion. **Figure 2** Lung, Alveolar/bronchiolar epithelium - Hyperplasia in a male B6C3F1/N mouse from a chronic study. This lesion occurs adjacent to bronchioles and alveolar ducts. **Figure 3** Lung, Alveolar/bronchiolar epithelium - Hyperplasia in a male B6C3F1/N mouse from a chronic study (higher magnification of Figure 2). The majority of the cells are not ciliated, but some are (arrows). **Figure 4** Lung, Alveolar/bronchiolar epithelium - Hyperplasia in a male B6C3F1/N mouse from a chronic study. Secondary alveolar epithelial hyperplasia associated with inflammation is present at the bronchiolar-alveolar duct junction. **Figure 5** Lung, Alveolar epithelium - Hyperplasia in a male B6C3F1/N mouse from a chronic study (higher magnification of Figure 4). Large, foamy macrophages, neutrophils, and lymphocytes are associated with the alveolar epithelial hyperplasia.

**Comment:** Alveolar/bronchiolar epithelial hyperplasia is hyperplasia of the epithelial cells in the centriacinar region (terminal bronchiole/alveolar duct and adjacent alveoli) of the lung (Figure 1, Figure 2, Figure 3, Figure 4, and Figure 5). It is this consistent location that differentiates this lesion from alveolar epithelial hyperplasia, which is randomly located in the alveolar parenchyma. The cells are generally cuboidal with round to oval nuclei. The majority of the cells are nonciliated, with a variable number of ciliated cells, and some appear to have apical blebs. Given the location of this lesion, it may be a precursor to alveolar/bronchiolar neoplasia. As with alveolar/bronchiolar neoplasms, it is unclear what type of cell is proliferating in this lesion. The proliferating cells may originate in the terminal bronchioles or in the alveolar ducts. The morphology of the cells is similar to that of the terminal bronchiole cells. However, in alveolar/bronchiolar neoplasms, in some of the cells immunohistochemical staining is consistent with Clara cells, and in other cells it is consistent with alveolar epithelial cells. As with alveolar epithelial hyperplasia, this lesion can occur concurrently with, and may be secondary to, inflammation (Figure 4 and Figure 5).

**Recommendation:** Lung, Alveolar/bronchiolar epithelium - Hyperplasia should be diagnosed and given a severity grade whenever present. When the hyperplasia is considered secondary to inflammation, it need not be recorded separately unless the pathologist feels that its severity warrants a separate diagnosis. If it is not diagnosed separately, it should be described in the pathology narrative



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### *Lung, Alveolar/Bronchiolar Epithelium – Hyperplasia*

as a component of the inflammatory lesion. If the hyperplastic cells have significant features of atypia, the modifier “atypical” should be included in the diagnosis (i.e., Lung, Alveolar/bronchiolar epithelium - Hyperplasia, Atypical).

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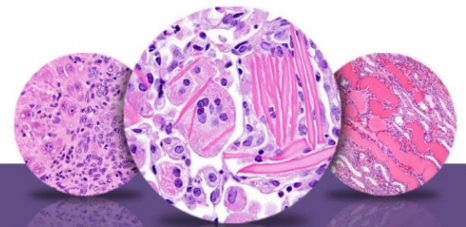
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