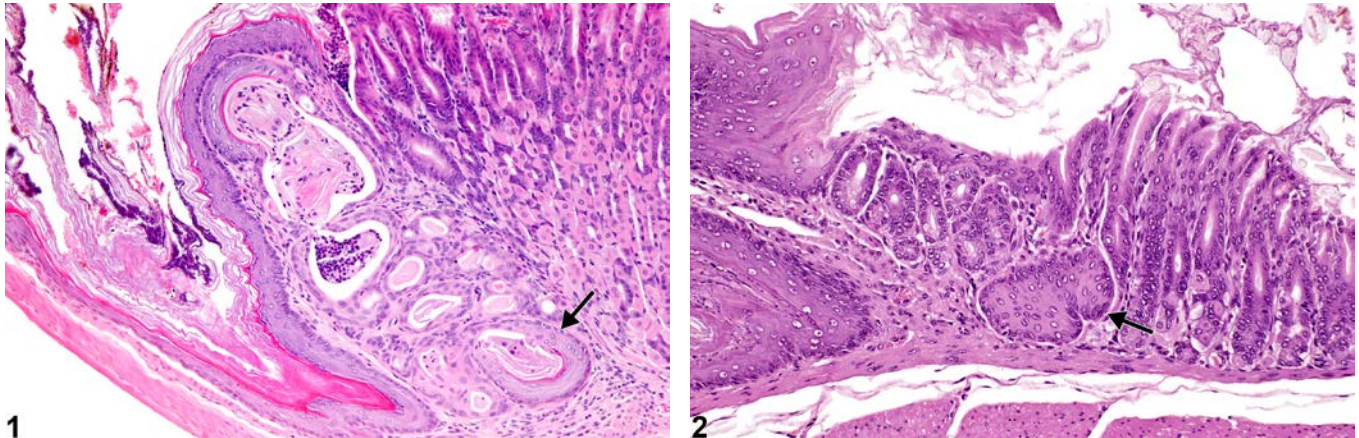




# NTP Nonneoplastic Lesion Atlas

## *Stomach, Glandular Stomach – Metaplasia, Squamous*



**Figure Legend:** **Figure 1** Stomach, Glandular stomach - Metaplasia, Squamous in a male B6C3F1 mouse from a chronic study. The normal epithelium of the gastric glands is replaced by squamous epithelium (arrow). **Figure 2** Stomach, Glandular stomach - Metaplasia, Squamous in a male B6C3F1 mouse from a chronic study. The normal epithelium of the gastric glands is replaced by squamous epithelium (arrow).

**Comment:** Squamous metaplasia of the glandular stomach is characterized by a reversible change in which cuboidal or columnar mucosal epithelial cells are replaced by squamous epithelial cells (Figure 1 and Figure 2, arrows). Squamous metaplasia is often but not always an adaptive change to withstand adverse environmental conditions, such as chronic irritation, and is reversible if the cause is removed. Squamous metaplasia of the glandular stomach most often occurs at the limiting ridge (Figure 1 and Figure 2, arrows). It can be an incidental finding or a treatment-related lesion.

**Recommendation:** Whenever present, squamous metaplasia should be diagnosed and graded based on the number and size of metaplastic areas. Associated lesions, such as inflammation, should be diagnosed separately.

### References:

Myers RK, McGavin MD. 2007. Cellular and tissue responses to injury. In: Pathologic Basis of Veterinary Disease, 4th ed (McGavin MD, Zachary JF, eds). Mosby, St Louis, MO, 3-62.



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### References:

National Toxicology Program. 2007. NTP TOX-72. Toxicity Studies of Sodium Dichromate Dihydrate (CAS No. 7789-12-0) Administered in Drinking Water to F344/N Rats and B6C3F<sub>1</sub> Mice and Male Balb/c and am3-C57BL/6 Mice. NTP, Research Triangle Park, NC.

Abstract: <http://ntp.niehs.nih.gov/go/11170>

National Toxicology Program. 2010. NTP TR-558. Toxicology and Carcinogenesis Studies of 3,3',4,4'-Tetrachloroazobenzene (TCAB) (CAS No. 14047-09-7) in Harlan Sprague Dawley Rats and B6C3F<sub>1</sub> Mice (Gavage Studies). NTP, Research Triangle Park, NC.

Abstract: <http://ntp.niehs.nih.gov/go/33564>

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