

**Figure 3-16** The morphology of an ulcer. **A**, A chronic duodenal ulcer. **B**, Low-power cross-section view of a duodenal ulcer crater with an acute inflammatory exudate in the base.

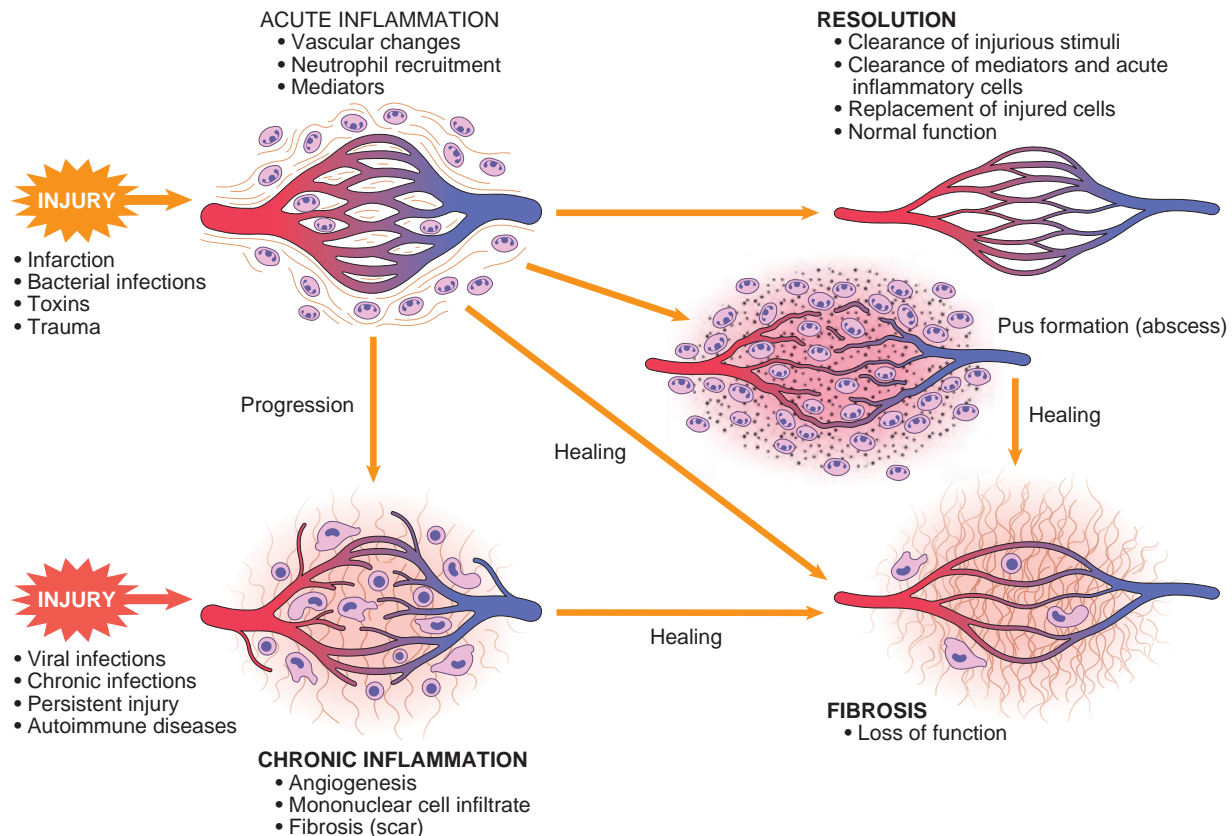
### Outcomes of Acute Inflammation

Although, as might be expected, many variables may modify the basic process of inflammation, including the nature and intensity of the injury, the site and tissue affected, and the responsiveness of the host, **all acute inflammatory reactions typically have one of three outcomes** (Fig. 3-17):

- **Complete resolution.** In a perfect world, all inflammatory reactions, once they have succeeded in eliminating the offending agent, should end with restoration of the site of acute inflammation to normal. This is called

*resolution* and is the usual outcome when the injury is limited or short-lived or when there has been little tissue destruction and the damaged parenchymal cells can regenerate. Resolution involves removal of cellular debris and microbes by macrophages, and resorption of edema fluid by lymphatics.

- **Healing by connective tissue replacement (scarring, or fibrosis).** This occurs after substantial tissue destruction, when the inflammatory injury involves tissues that are incapable of regeneration, or when there is abundant fibrin exudation in tissue or in serous cavities (pleura, peritoneum) that cannot be adequately cleared. In all



**Figure 3-17** Outcomes of acute inflammation: resolution, healing by fibrosis, or chronic inflammation. The components of the various reactions and their functional outcomes are listed.