

Table 23.1. Characteristics of Mycobacteria of Major Clinical Importance*

Species	Reservoir	Virulence for Humans	Main Disease Caused	Case-to-Case Transmission	In Vitro Growth Rate	Optimum Growth Temperature (°C)
<i>M. tuberculosis</i>	Human	+++	Tuberculosis	Yes	S	37
<i>M. bovis</i>	Animals	+++	Tuberculosis	Rare	S	37
Bacillus Calmette-Guerin (BCG)	Artificial culture	±	Local lesion	Very rare	S	37
<i>M. kansasii</i>	Environment	++	Tuberculosis-like	No	S	37
<i>M. scrofulaceum</i>	Environment	+	Lymphadenitis	No	S	37
<i>M. avium-intracellulare</i>	Environment; birds	+	Tuberculosis-like	No	S	37
<i>M. fortuitum</i>	Environment	±	Skin abscesses	No	F	37
<i>M. marinum</i>	Water, fish	±	Skin granuloma	No	S	30
<i>M. ulcerans</i>	Probably environment; tropical	+	Severe skin ulcerations	No	S	30
<i>M. leprae</i>	Human	+++	Leprosy	Yes	None	Not applicable

* This table omits many essentially saprophytic mycobacteria. S = slow; F = fast.

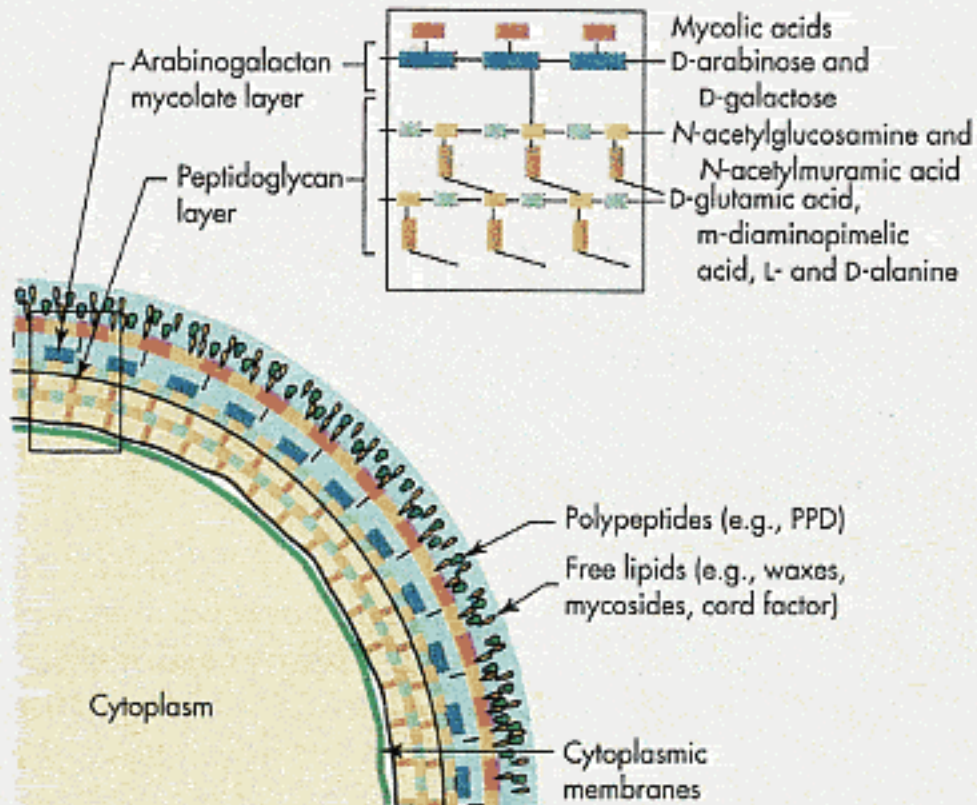
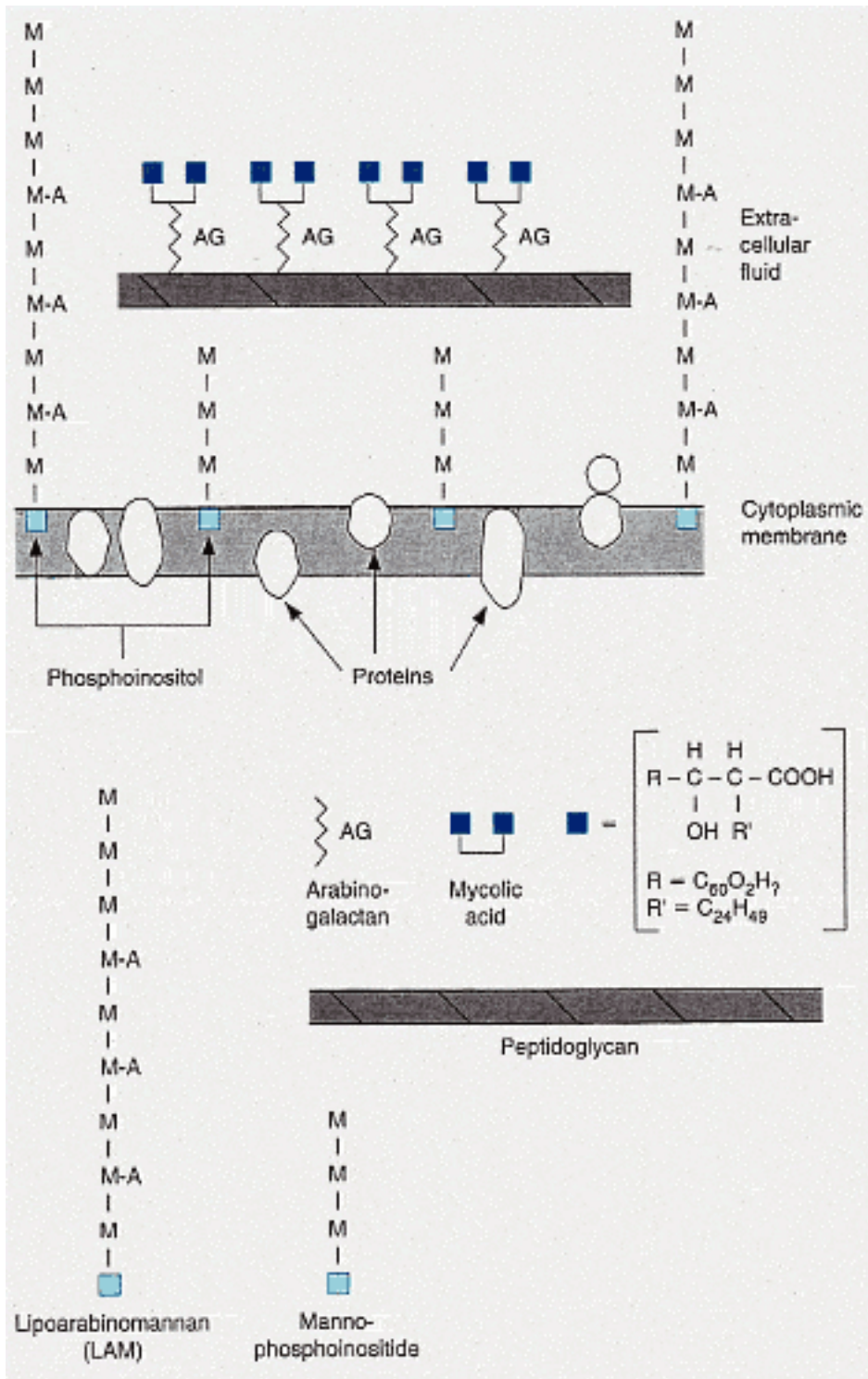


FIGURE 40-1 Mycobacterial cell wall structure. Mycolic acids are attached to the arabinose-galactose layer at the arabinose side chain. Phosphodiester linkage binds the arabinogalactan layer to the underlying peptidoglycan layer at the muramic acid subunit. PPD, Purified protein derivative. (Redrawn from Kubica GP, Wayne LG, editors: *The mycobacteria: a sourcebook*, New York, 1984, Marcel Dekker.)



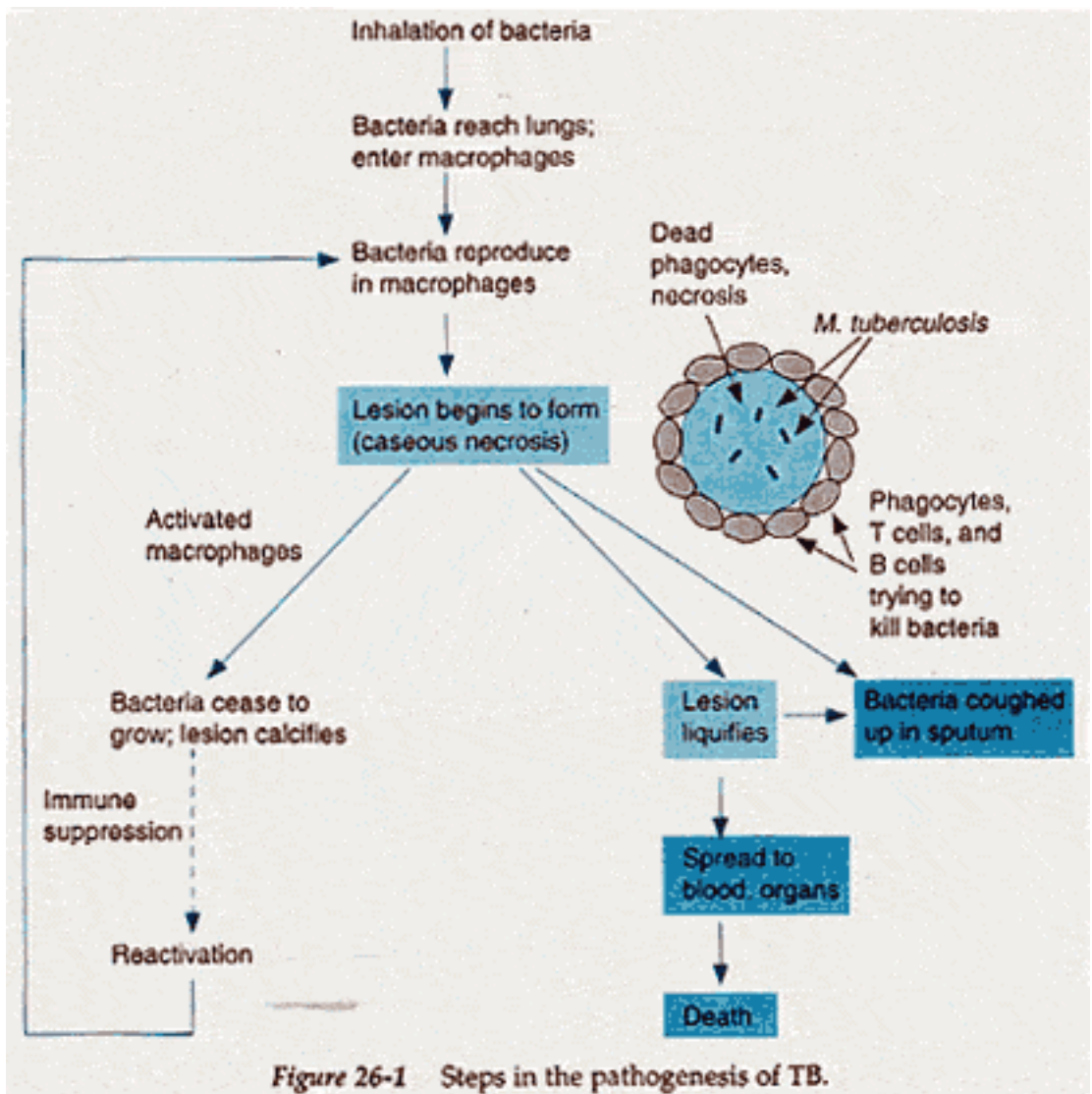
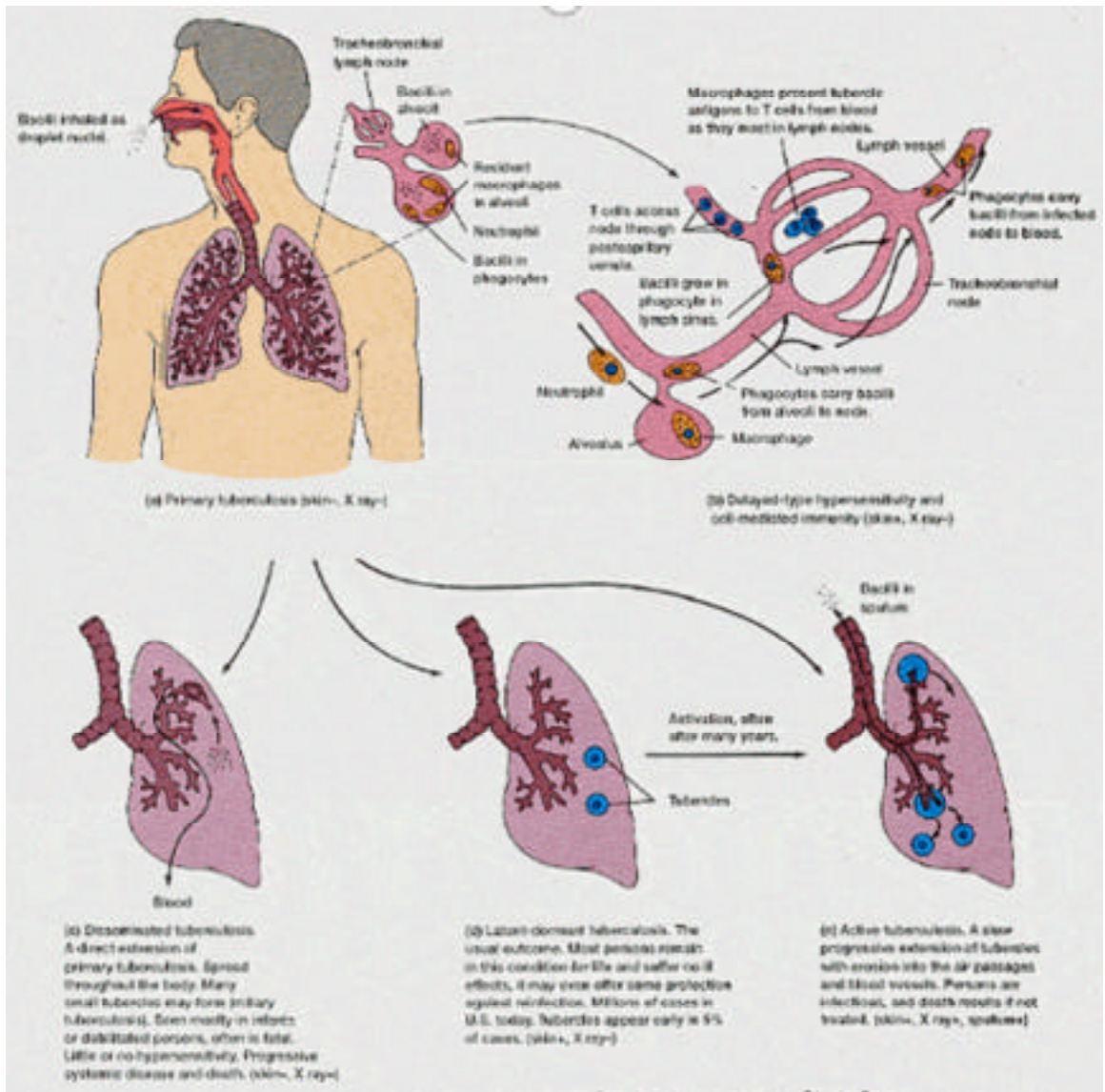


Figure 26-1 Steps in the pathogenesis of TB.



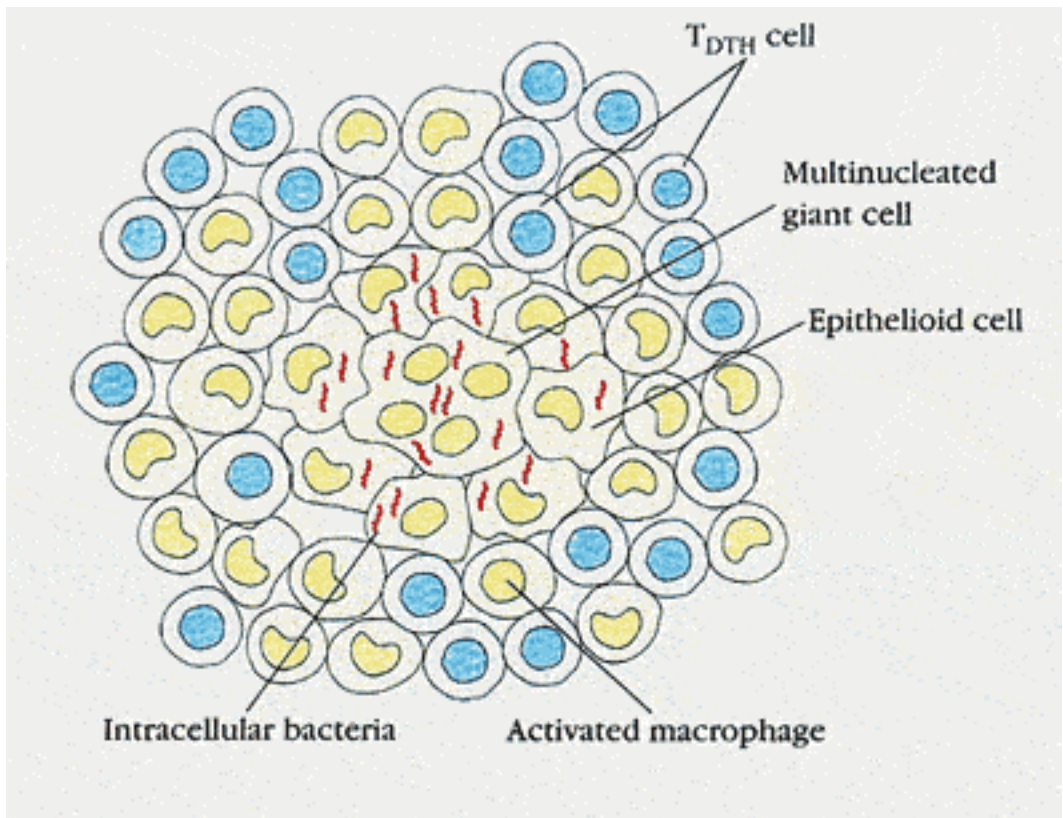


FIGURE 16-16

A prolonged DTH response can lead to formation of a granuloma, a nodule-like mass. Lytic enzymes released from activated macrophages in a granuloma can cause extensive tissue damage.

