

Game Plan

Lecture

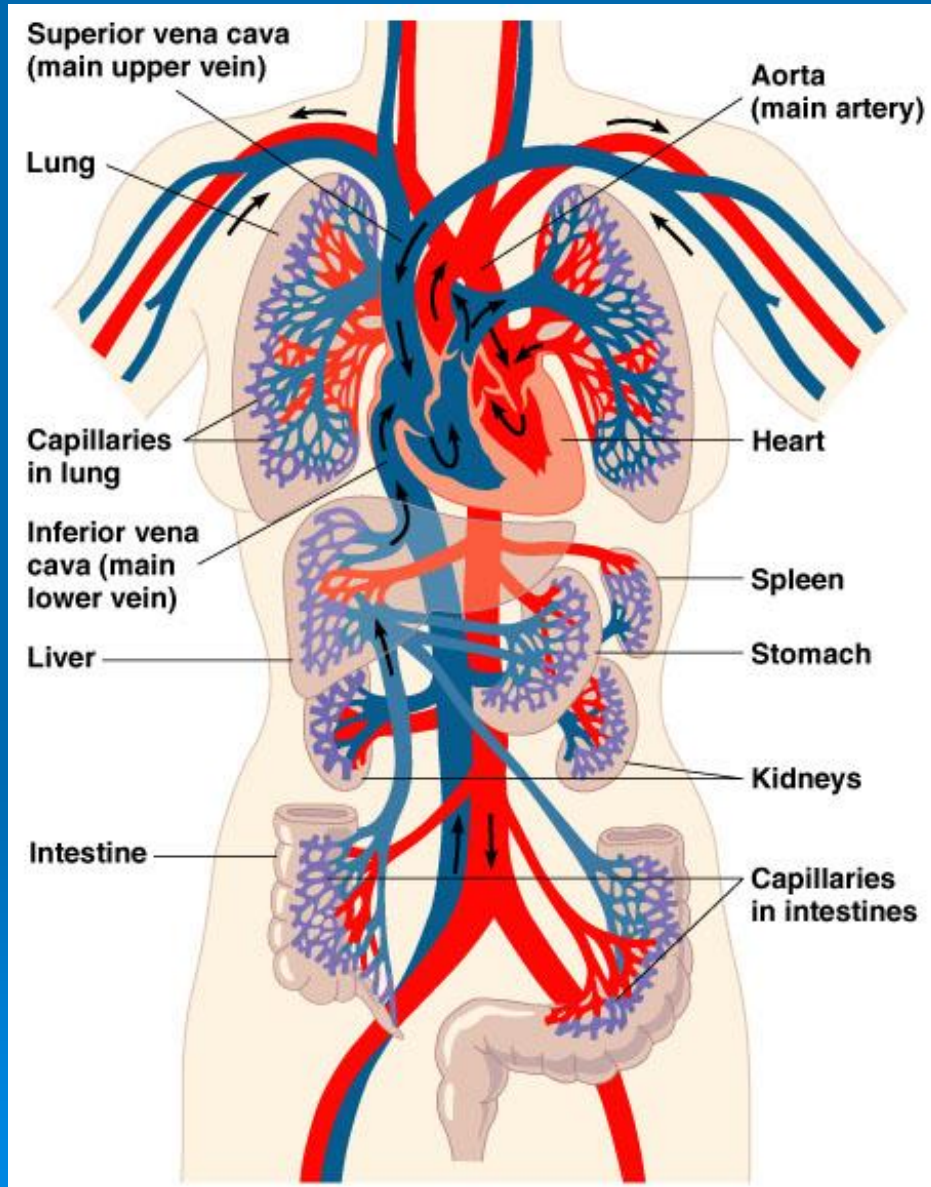
Cardio/ lymphatic systems
Bacterial diseases
Viral diseases
Protozoa diseases
Helminthic diseases

Lab

Major Unknown

Dental Microbiology

Circulatory system



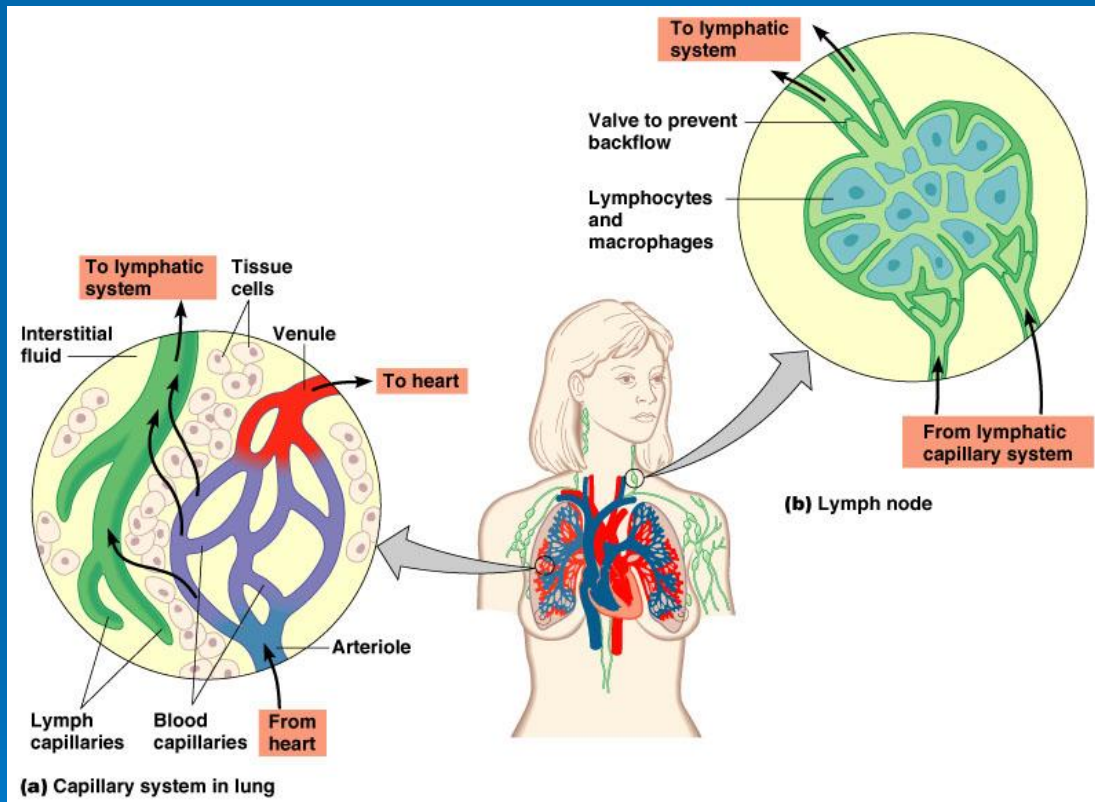
Components:

- Heart
- Blood vessels
 - Arteries
 - Veins
 - Capillaries
- Microbes and toxins persisting in blood=
septicemia
- Systemic inflammatory response syndrome=
sepsis

The lymphatic system

Components:

- Lymph capillaries
 - Collects plasma/ interstitial fluid/ microbes from tissues
- Lymphatics lead to lymph nodes
 - Macrophage, T and B cells reside here
- Swollen lymph nodes are buboes



Lymphangitis and septicemia/ sepsis



Figure 23-2 Microbiology, 6/e
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Infective endocarditis

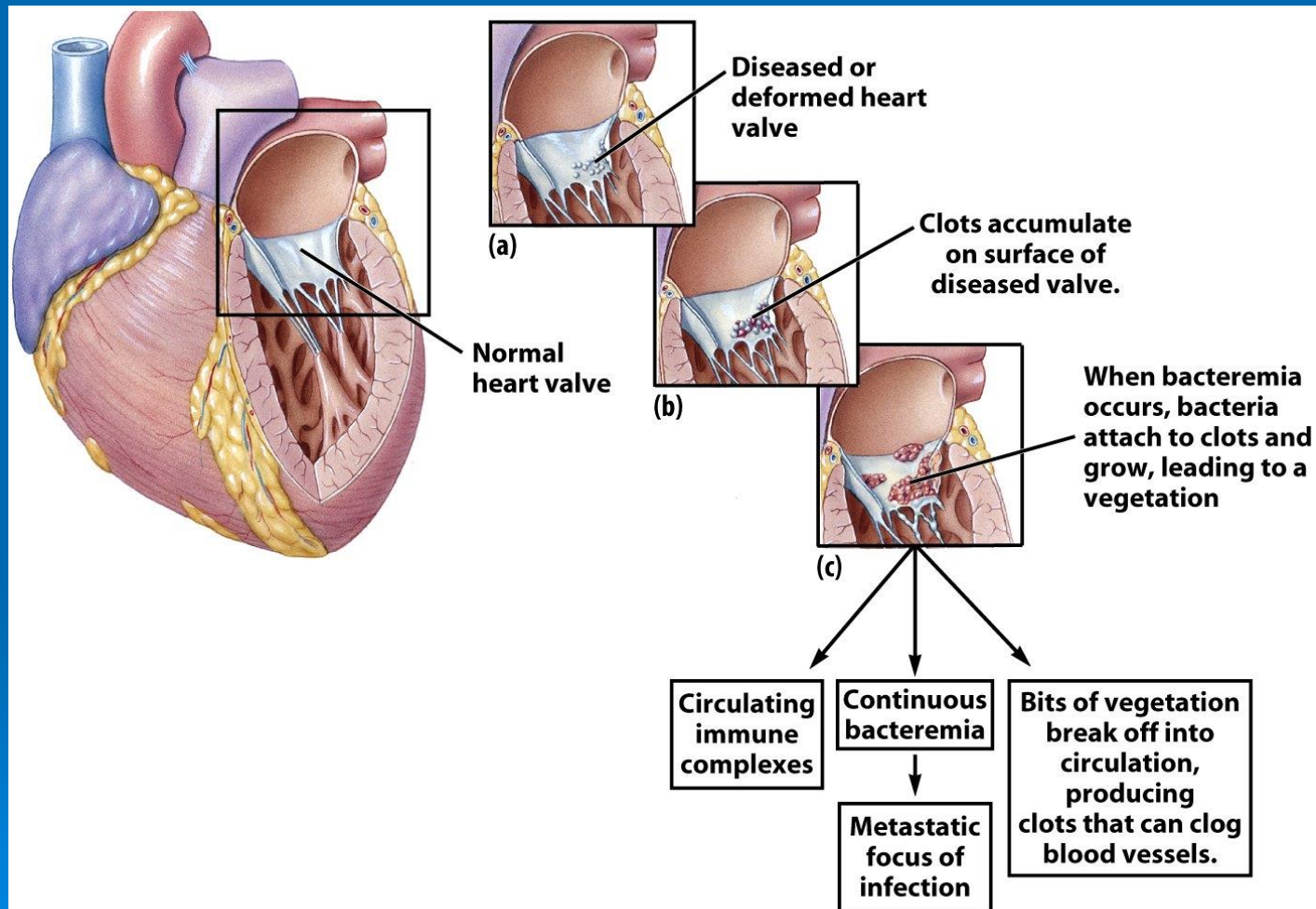
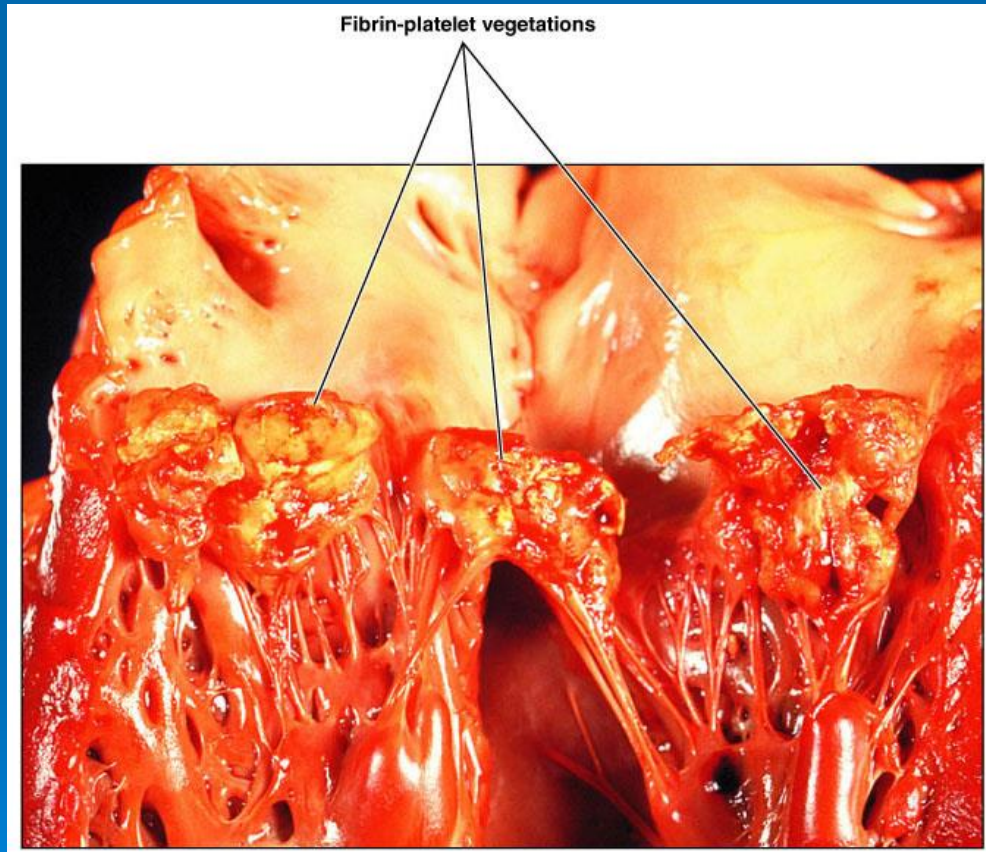


Figure 23-3 Microbiology, 6/e
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Infective subacute endocarditis



Symptoms

Fever
Heart murmur
Fibrin platelet vegetations

Bacillus anthracis- anthrax



Figure 23-7 Microbiology, 6/e
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Yersinia pestis- plague



Types

Bubonic plague

Septicemic plague

Pneumonic plague

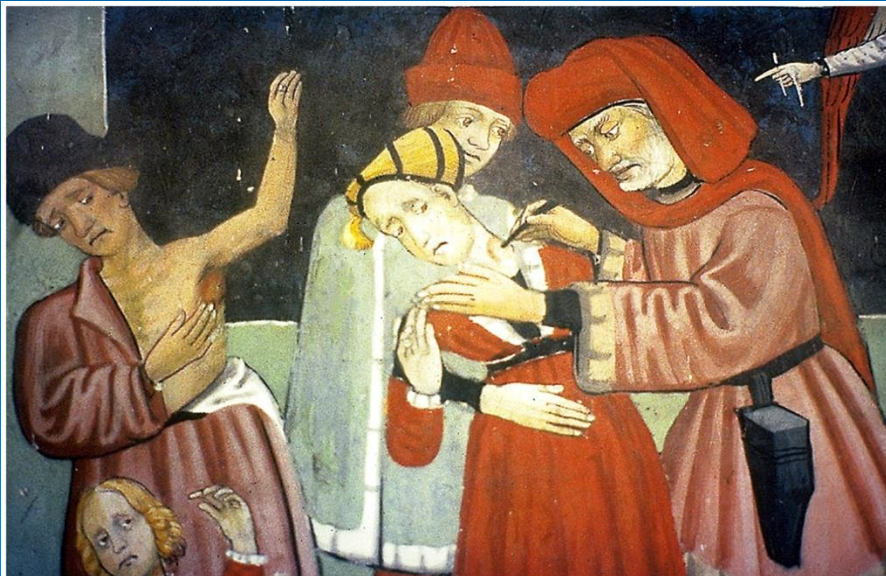
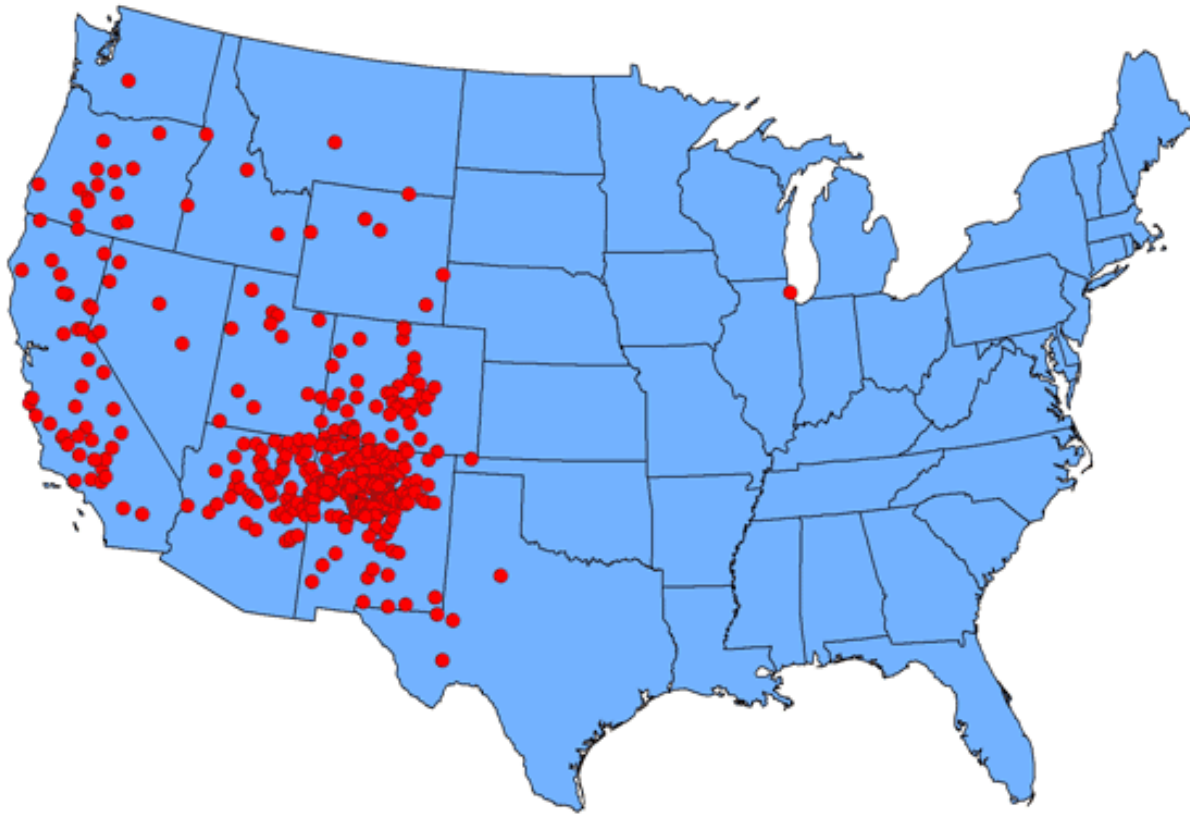


Figure 23-9 Microbiology, 6/e
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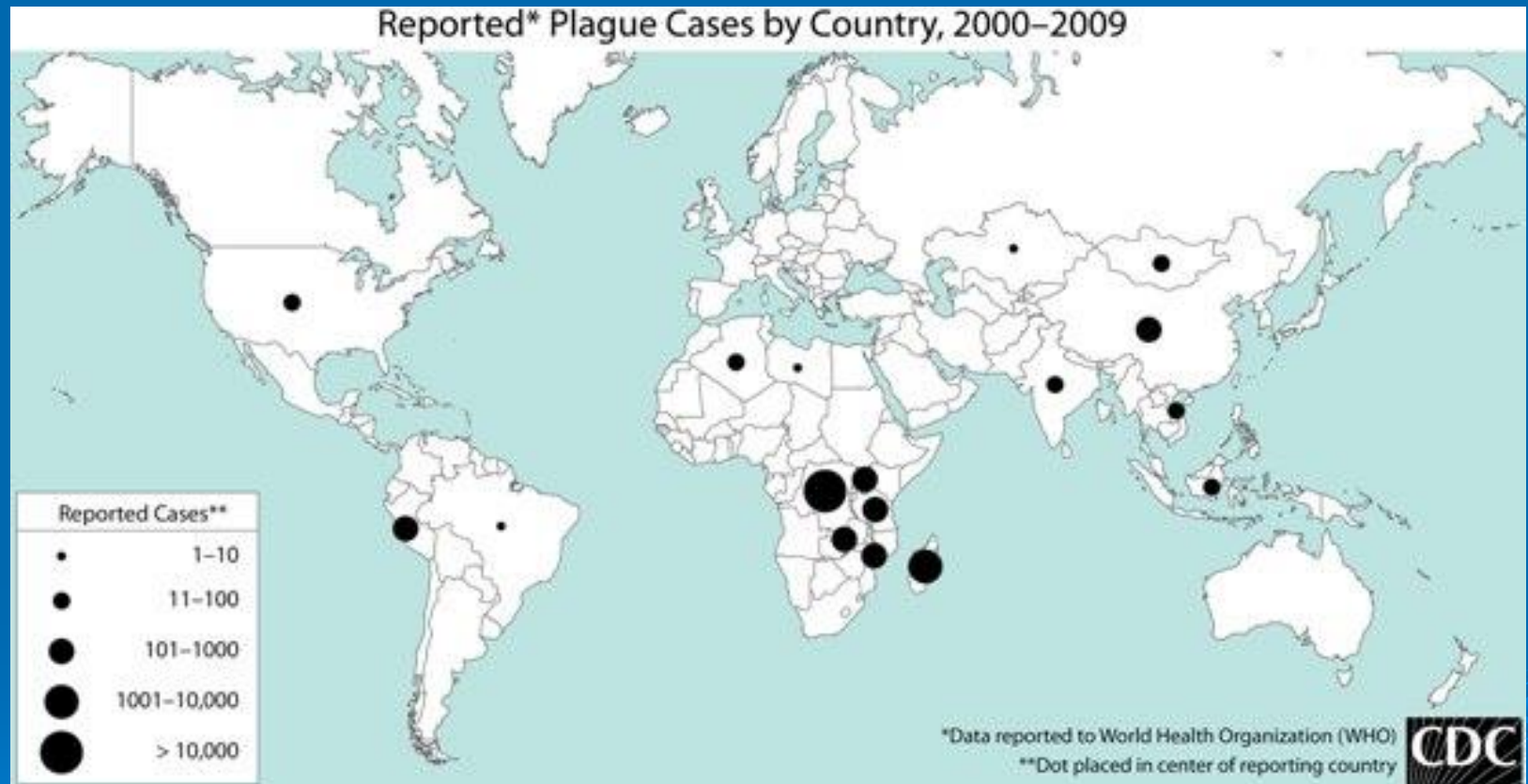
Human US Plague distribution

Reported cases of human plague--United States, 1970-2012



1 dot placed in county of exposure for each plague case

World-wide plague distribution



Viral hemorrhagic fevers

<u>Classic</u>	<u>Virus</u>	<u>Vector</u>	<u>Reservoir</u>
Yellow fever	Flavivirus	<i>Aedes aegypti</i>	Monkeys
Dengue & DHF	Flavivirus	<ul style="list-style-type: none">• <i>A. aegypti</i>• <i>A. albopictus</i>	No known reservoir
<u>Emerging</u>			
Marburg	Filovirus	<ul style="list-style-type: none">• Monkeys (?)	
Ebola	Filovirus	<ul style="list-style-type: none">• Monkeys (?)	
Lassa fever	Arenavirus	<ul style="list-style-type: none">• Rodents	
Argentine hemorrhagic fever	Arenavirus	<ul style="list-style-type: none">• Rodents	
Bolivian hemorrhagic fever	Arenavirus	<ul style="list-style-type: none">• Rodents	
Hantavirus pulmonary syndrome	Hantavirus	<ul style="list-style-type: none">• Rodents	

Epstein-Barr Virus (herpes virus 4)



EB Viral diseases

Burkitt's lymphoma

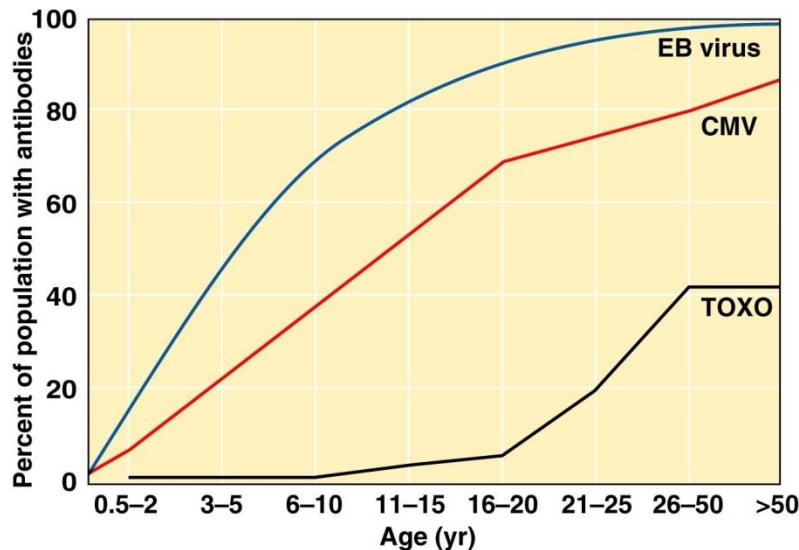
Infectious mononucleosis

Possibly:

MS

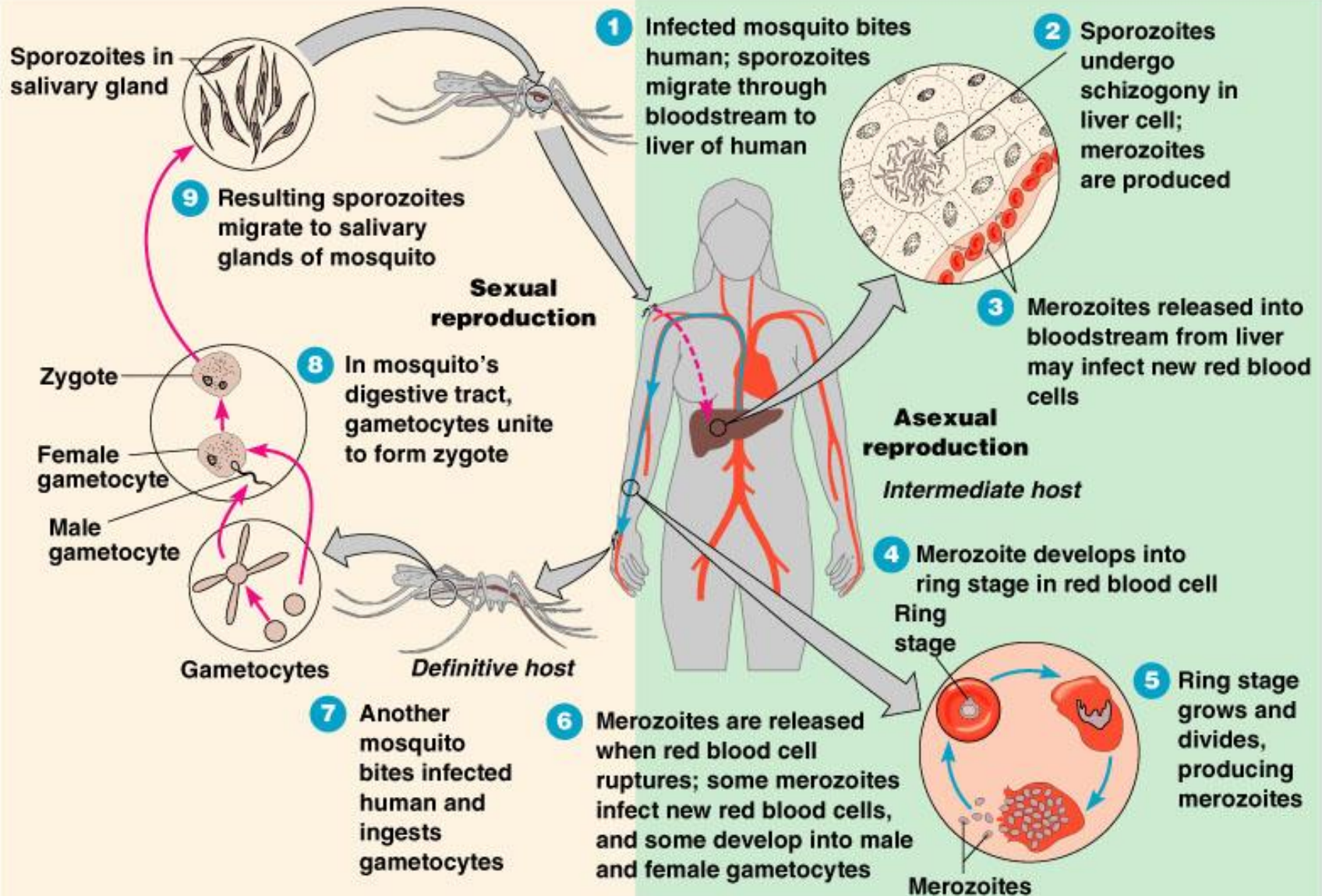
Hodgkin's disease

Nasopharyngeal cancer



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Malaria



Wuchereria bancrofti- filariasis or elephantiasis

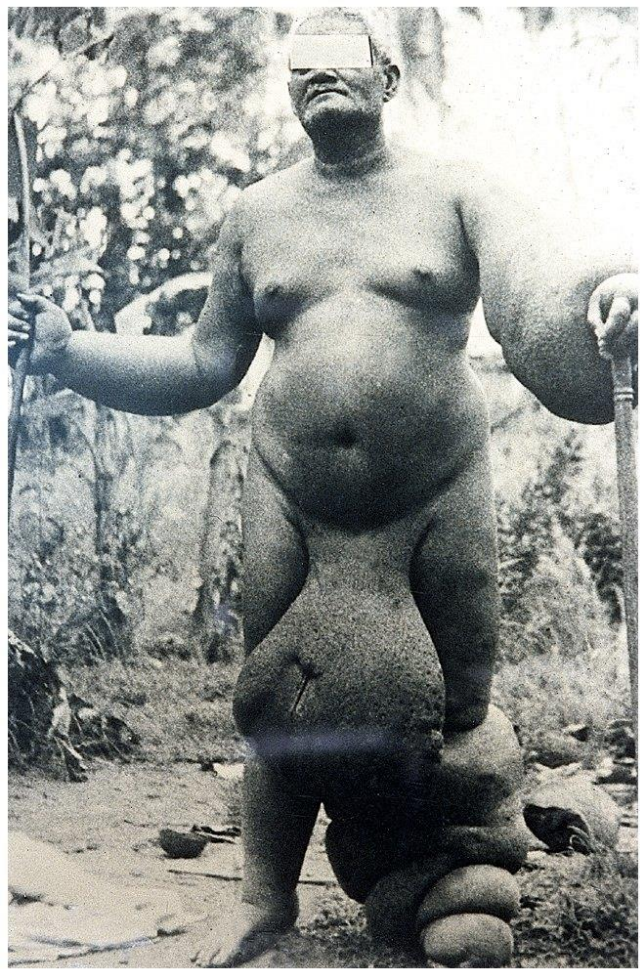


Figure 23-5a Microbiology, 6/e
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Characteristics

Round worm transmitted by mosquito
Peripheral BV during night, deep vessels
during day
Blockage of lymph vessels leads to
elephantiasis



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