

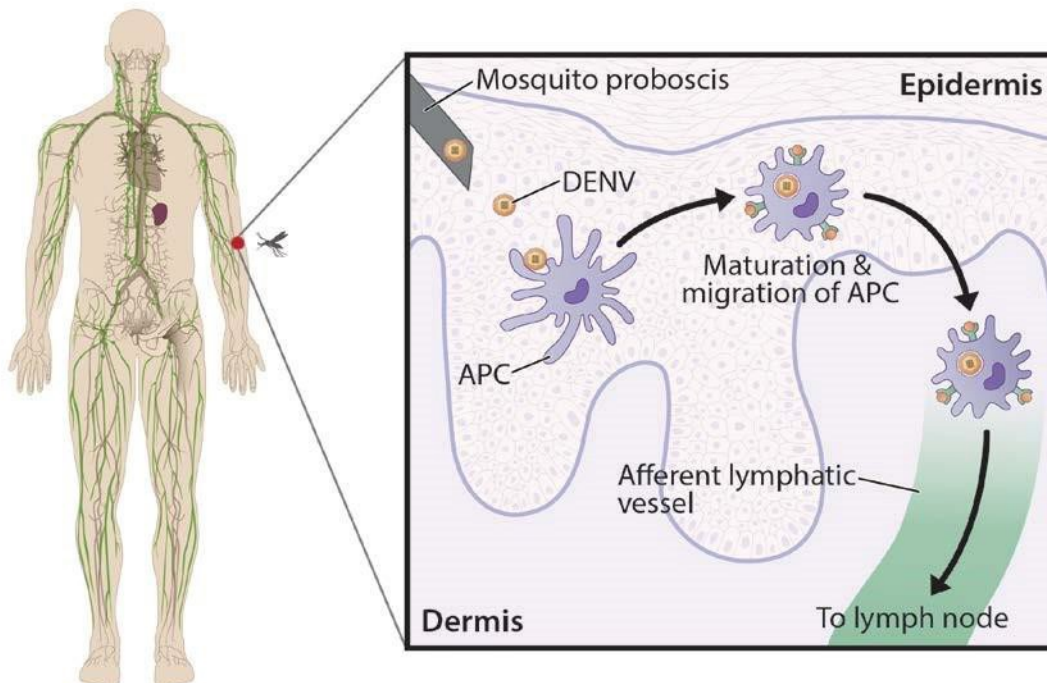
## DENV Replication

During viral replication, DENV is taken up by antigen-presenting cells (APC) of the skin known as dendritic cells (Langerhans cells). DENV can replicate in hepatocytes and mononuclear cells, such as dendritic cells, monocytes, and macrophages. Infected APCs travel to lymph nodes where DENV spreads and continues to infect other APCs including monocytes and macrophages.

DENV disseminates throughout the body in infected APCs during a 5- to 7-day viremia.

Autopsy studies have found DENV antigen in skin, liver, spleen, lymph node, kidney, bone marrow, lungs, thymus, brain, and cardiac muscle

## Viral Replication



## Histopathologic Changes

Minimal histopathologic changes are visible in persons dying from dengue, such as

- Muscle — moderate perivascular mononuclear cell infiltrate with lipid accumulation
- Skin rash — minor lymphocytic dermal vasculitis
- Liver — apoptosis of hepatocytes, microvesicular steatosis, and Councilman bodies, that is DENV infected hepatocytes engulfed by Kupffer cells
  - May be virally induced, as little inflammation is visible

