NETs have a dark side that makes them dangerous when inappropriately deployed. The structures have been implicated as contributors to a range of conditions.

**MALARIA**
NET formation is triggered during malaria, and then the structures are cleaved into fragments by circulating DNase1. These fragments lead to upregulation of cytoadhesion receptors on the surface of endothelial cells lining the blood vessels. Cells infected with *Plasmodium* parasites bind to these receptors, which helps them avoid the immune response in the spleen and causes damaging inflammation.

**CANCER**
NET-associated proteins lead to reawakening of dormant cancer cells and convert them to proliferating metastatic cells.

**THROMBOSIS**
NET components promote blood coagulation and obstruction of small blood vessels.

**ATHEROSCLEROSIS**
NETs activate macrophages, inducing them to produce proinflammatory cytokines. The histones associated with NETs also damage the smooth muscle of the arterial walls.

**LUPUS**
This autoimmune disease is characterized by production of autoantibodies directed against one’s own DNA. NETs are thought to be a source of autoantigens, as well as immunostimulatory molecules that activate dendritic cells and fuel inflammation.