Two unique myopathies of the broiler chicken superficial pectoral muscle (fillet) were described in the previous 2013 issues of WOGS January-White Striping and April-Woody Breast). While white striping is characterized as excessive fat accumulation along the length of the muscle fibers due to scattered degeneration of individual muscle cells, wood breast is defined as extensive degeneration of the muscle fibers and collagen deposition resulting in hard (woody) consistency of the breast fillets. The severity of both myopathies appears to increase with increasing slaughter weights and breast fillet weights. Both myopathies may be observed on the same fillet simultaneously in some instances.

Necrotic pectoral myopathy perhaps represents the final stage of the progressive degeneration of the breast muscle of broiler chickens. Surface of the muscles exhibit scattered pinpoint hemorrhages (especially at the proximal/shoulder end of the fillets) of varying severity with often an accompanying gelatinous, often bloodstained, exudate. Usually the entire muscle is affected. No evidence of external trauma is observed, consequently the lesions are only observed upon removal of the skin over the edematous tissues.

Histologically, degenerative changes typical of exertional myopathies (i.e., scattered focal necrosis, hypercontraction of muscle fibers, macrophage infiltration, and fibrous tissue deposition) are observed. Such ultrastructural alterations are typical of ischemia and are accentuated in necrotic/fibrotic muscles as muscle proteins are often replaced with highly cross-linked collagen. Muscle ischemia can occur even in the absence of growth, mobility or postural problems in poultry. Actual commercial prevalence and severity of these myopathies and their correlation to each other have not been fully examined. Research is underway, albeit slow, in many institutions in order to understand the etiology of and to reduce economic losses associated with these novel myopathies in broiler chickens.