

Clinical Features Patients typically note an increase in abdominal girth that is often accompanied by the development of peripheral edema. The development of ascites is often insidious, and it is surprising that some patients wait so long and become so distended before seeking medical attention. Patients usually have at least 1–2 L of fluid in the abdomen before they are aware that there is an increase. If ascitic fluid is massive, respiratory function can be compromised, causing dyspnea. Hepatic hydrothorax may also contribute to respiratory symptoms. Patients with massive ascites are often malnourished and have muscle wasting and excessive fatigue and weakness.

Diagnosis Diagnosis of ascites is by physical examination and is often aided by abdominal imaging. Patients will have bulging flanks, may have a fluid wave, or may have the presence of shifting dullness. This is determined by taking patients from a supine position to lying on either their left or right side and noting the movement of the dullness to percussion. Subtle amounts of ascites can be detected by ultrasound or CT scanning. Hepatic hydrothorax is more common on the right side and implicates a rent in the diaphragm with free flow of ascitic fluid into the thoracic cavity.

When patients present with ascites for the first time, it is recommended that a diagnostic paracentesis be performed to characterize the fluid. This should include the determination of total protein and albumin content, blood cell counts with differential, and cultures. In the appropriate setting, amylase may be measured and cytology performed. In patients with cirrhosis, the protein concentration of the ascitic fluid is low, usually <2.5 g/dL. The serum ascites-to-albumin gradient (SAAG), calculated by subtracting the fluid albumin level from the serum albumin level, has replaced the description of exudative or transudative fluid. When the SAAG is >1.1 g/dL, the cause of the ascites is most likely due to portal hypertension; this is usually in the setting of cirrhosis. Cardiac ascites can be identified by SAAG >1.1 g/dL and ascites protein >2.5 g/dL. When the SAAG is <1.1 g/dL, infectious or malignant causes of ascites should be considered. When ascitic fluid protein is very low, <1.5 g/dL, patients are at increased risk for developing