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Medically Reviewed by Melinda Ratini, DO, MS on June 29, 2021 The pancreas performs vital functions in your body. It helps in digestion and creates insulin to maintain your blood sugar. Certain conditions and lifestyle choices can damage the pancreas and lead to pancreatitis — or the inflammation of the pancreas. Necrotizing pancreatitis is a serious result of acute pancreatitis. If the damage done to your pancreas is too severe, part of the pancreas actually dies (called necrosis). You have pancreatitis when your pancreas becomes inflamed. This happens when the digestive chemicals produced by the pancreas get mixed up and start digesting the pancreas itself. There are two types of pancreatitis — acute and chronic. Both are serious and require treatment. Acute pancreatitis. This type is sudden and goes away quickly with treatment. Acute pancreatitis is the most common form, and it's also the most common cause of necrotizing pancreatitis. Chronic pancreatitis. Chronic pancreatitis is long-lasting. Your pancreas doesn't heal and worsens with time. Chronic pancreatitis causes permanent damage to your pancreas, but it doesn't lead to necrotizing pancreatitis very often. Complications. There are many ways pancreatitis can get worse. Repeated attacks of acute pancreatitis can become chronic pancreatitis. Chronic pancreatitis can lead to the development of conditions like diabetes or cancer. Necrosis happens when a tissue in your body dies. Your body tissue can die when there isn't enough blood flow to the area. Necrosis is permanent, making it a serious complication from pancreatitis. Necrotizing pancreatitis happens when the inflammation and damage from pancreatitis cause tissue in the pancreas to die — or necrotize. Necrotizing pancreatitis has a range of severity, but complications of necrosis are serious. Symptoms and treatment options will depend on how severe the necrosis is. Necrotizing pancreatitis is a result of pancreatitis. Most commonly, the sudden damage caused by acute pancreatitis can lead to necrosis of the pancreas. People at risk for acute pancreatitis are similarly at risk for necrotizing pancreatitis. The most common causes are gallstones and drinking too much alcohol. Necrotizing pancreatitis can also be caused by: Trauma and damage to the pancreas High levels of calcium High levels of cholesterol Pancreatic tumors Autoimmune conditions Genetic conditions that harm your pancreas The symptoms of necrotizing pancreatitis are similar to those of acute pancreatitis. The necrosis in your pancreas can be benign, causing no harm to you. However, certain germs and bacteria can spread to the rest of your pancreas and cause further complications. Symptoms of acute pancreatitis include: Slow or gradual pain in your upper abdomen (the pain can extend to your back) Fever Swollen abdomen Nausea Vomiting Worsening symptoms can suggest severe pancreatitis — which increases the chances of necrosis. Severe symptoms to look out for are: Chills Quickened heartbeat Shortness of breath Jaundice (yellow tint of your skin or eyes) Early detection and treatment are crucial in preventing complications. If necrotizing pancreatitis is left untreated, it can be fatal. Infection can happen in your pancreas around 2 or 3 weeks after necrosis sets in. This can lead to sepsis, a severe response to bacteria that can lead to shock. Shock damages your organs, potentially leading to death. Methods of diagnosing pancreatitis include: Tests for pancreatic enzymes in your bloodstream Tests for substances like sodium, potassium, or glucose Tests to narrow down the cause of your pancreatitis Imaging tests on your abdomen If you have necrotizing pancreatitis, your doctor may use another imaging test to check for infection. Your doctor may also take a small sample of the dead tissue in the pancreas to check for signs of infection. The first step is to treat your pancreatitis. Treatment options include: Bed rest Intravenous (IV) fluids Pain relief Medications that prevent nausea and vomiting Liquid nutrition through a feeding tube After the pancreatitis is under control, the dead tissue will be examined for infection. If there's no sign of infection, no further treatment may be needed. Infected tissue requires antibiotics. The dead tissue will also likely be surgically removed to prevent the infection from spreading. If you're stable, treatment for necrotizing pancreatitis might be delayed to avoid serious complications. Keep your pancreas healthy. This will lower your risk of pancreatitis in the first place and help you avoid complications like necrosis. You can't totally prevent pancreatitis. But, certain lifestyle changes will help you stay healthy and lower your risk: Avoid drinking alcohol Don't smoke Stay at a healthy weight Eat a low-fat diet © 2020 WebMD, LLC. All rights reserved. View privacy policy and trust info Gut microbiota on admission as predictive biomarker for acute necrotizing pancreatitis. Zou M, Yang Z, Fan Y, Gong L, Han Z, Ji L, Hu X, Wu D, Zou M, et al. *Front Immunol*. 2022 Aug 29;13:988326. doi: 10.3389/fimmu.2022.988326. eCollection 2022. PMID: 36105818 Free PMC article. Whitcomb DC (2019) Pancreatitis: TIGAR-O version 2 risk/etiology checklist with topic reviews, updates, and use primers. *Clin Transl Gastroenterol* 10(6):e00027. PubMed PubMed Central Google Scholar Yadav D, Lowenfels AB (2013) The epidemiology of pancreatitis and pancreatic cancer. *Gastroenterology*, 144(6):1252–1261 PubMed PubMed Central Google Scholar Gryshchenko O, Gerasimenko JV, Peng S, Gerasimenko OV, Petersen OH (2018) Calcium signalling in the acinar environment of the exocrine pancreas: physiology and pathophysiology. *J Physiol* 596(14):2663–2678 CAS PubMed PubMed Central Google Scholar Romac JM, Shahid RA, Swain SM, Vigna SR, Liddle RA (2018) Piezo1 is a mechanically activated ion channel and mediates pressure induced pancreatitis. *Nat Commun* 9(1):1715. Published 2018 Apr 30. Article PubMed PubMed Central Google Scholar Pallagi P, Madácsy T, Varga A, Maláth J (2020) Intracellular Ca<sup>2+</sup> signalling in the pathogenesis of acute pancreatitis: recent advances and translational perspectives. *Int J Mol Sci* 21(11):1–18 Google Scholar Johnson CD, Kingsnorth AN, Imrie CW, McMahon MJ, Neoptolemos JP, McKay C et al (2001) Double blind, randomised, placebo controlled study of a platelet activating factor antagonist, lexipafant, in the treatment and prevention of organ failure in predicted severe acute pancreatitis. *Gut*. 48(1):62–69 CAS PubMed PubMed Central Google Scholar Raraty MGT, Connor S, Criddle DN, Sutton R, Neoptolemos JP (2004) Acute pancreatitis and organ failure: pathophysiology, natural history, and management strategies. *Curr Gastroenterol Rep* 6(2):99–103 PubMed Google Scholar Petrov MS, Yadav D (2019) Global epidemiology and holistic prevention of pancreatitis. *Nat Rev Gastroenterol Hepatol* 16(3):175–184 PubMed PubMed Central Google Scholar Roberts SE, Morrison-Rees S, John A, Williams JG, Brown TH, Samuel DG (2017) The incidence and aetiology of acute pancreatitis across Europe. *Pancreatology*. 17(2):155–165 PubMed Google Scholar Hamada S, Masamune A, Kikuta K, Hirota M, Tsuji I, Shimosegawa T (2014) Nationwide epidemiological survey of acute pancreatitis in Japan. *Pancreas*. 43(8):1244–1248 PubMed Google Scholar Fagenholz PJ, Fernández-Del Castillo C, Harris NS, Pelletier AJ, Camargo CA (2007) Direct medical costs of acute pancreatitis hospitalizations in the United States. *Pancreas*. 35(4):302–307 PubMed Google Scholar Banks PA, Bollen TL, Dervenis C, Gooszen HG, Johnson CD, Sarr MG et al (2013) Classification of acute pancreatitis – 2012: revision of the Atlanta classification and definitions by international consensus. *Gut*. 62(1):102–111 PubMed Google Scholar Van Dijk SM, Hallensleben NDL, Van Santvoort HC, Fockens P, Van Goor H, Bruno MJ et al (2017) Acute pancreatitis: recent advances through randomised trials. *Gut*. 66(11):2024–2032 PubMed Google Scholar Raraty MGT, Halloran CM, Dodd S, Ghaneh P, Connor S, Evans J et al (2010) Minimal access retroperitoneal pancreatic necrosectomy: impact on morbidity and mortality with a less invasive approach. *Ann Surg* 251(5):787–793 PubMed Google Scholar Gomatos IP, Halloran CM, Ghaneh P, Raraty MGT, Polydoros F, Evans JC et al (2016) Outcomes from minimal access retroperitoneal and open pancreatic necrosectomy in 394 patients with necrotizing pancreatitis. *Ann Surg* 263(5):992–1001 PubMed Google Scholar Beger HG, Bittner R, Block S, Büchler M (1986) Bacterial contamination of pancreatic necrosis. A prospective clinical study. *Gastroenterology* 91(2):433–438 CAS PubMed Google Scholar Connor S, Alexakis N, Neal T, Raraty M, Ghaneh P, Evans J et al (2004) Fungal infection but not type of bacterial infection is associated with a high mortality in primary and secondary infected pancreatic necrosis. *Dig Surg* 21(4):297–304 CAS PubMed Google Scholar Werge M, Novovic S, Schmidt PN, Glud LL (2016) Infection increases mortality in necrotizing pancreatitis: a systematic review and meta-analysis. *Pancreatology*. 16(5):698–707 PubMed Google Scholar Dellinger EP, Forsmark CE, Layer P, Lévy P, Maravi-Poma E, Petrov MS et al (2012) Determinant-based classification of acute pancreatitis severity: an international multidisciplinary consultation. *Ann Surg* 256(6):875–880 PubMed Google Scholar (2013) IAP/APA evidence-based guidelines for the management of acute pancreatitis. *Pancreatology* 13(4 SUPPL. 2):e1–e15 Marshall JC, Cook DJ, Christou NV, Bernard GR, Sprung CL, Sibbald WJ (1995) Multiple organ dysfunction score: a reliable descriptor of a complex clinical outcome. *Crit Care Med* 23(10):1638–1652 CAS PubMed Google Scholar Rische S, Riecken B, Degenkolb J, Kayser T, Caca K (2013) Transmural endoscopic necrosectomy of infected pancreatic necroses and drainage of infected pseudocysts: a tailored approach. *Scand J Gastroenterol* 48(2):231–240 PubMed Google Scholar Kumar N, Conwell DL, Thompson CC (2014) Direct endoscopic necrosectomy versus step-up approach for walled-off pancreatic necrosis: comparison of clinical outcome and health care utilization. *Pancreas*. 43(8):1334–1339 PubMed PubMed Central Google Scholar van Brunschot S, van Grinsven J, van Santvoort HC, Bakker OJ, Besselink MG, Boermeester MA et al (2018) Endoscopic retrograde cholangiopancreatography and endoscopic sphincterotomy versus conservative treatment for acute pancreatitis due to gallstones. *Lancet* 391(10115):51–58 PubMed Google Scholar van Brunschot S, Hollemans RA, Bakker OJ, Besselink MG, Baron TH, Beger HG et al (2018) Minimally invasive and endoscopic versus open necrosectomy for necrotizing pancreatitis: a pooled analysis of individual data for 1980 patients. *Gut*. 67(4):697–706 PubMed Google Scholar Hollerans RA, Bakker OJ, Boermeester MA, Bollen TL, Bosscha K, Bruno MJ et al (2019) Superiority of step-up approach vs open necrosectomy in long-term follow-up of patients with necrotizing pancreatitis. *Gastroenterology*. 156(4):1016–1026 PubMed Google Scholar Driedger M, Zyromski NJ, Visser BC, Jester A, Sutherland FR, Nakeeb A et al (2020) Surgical transgastric necrosectomy for necrotizing pancreatitis: a single-stage procedure for walled-off pancreatic necrosis. *Ann Surg* 271(1):163–168 PubMed Google Scholar Saunders R, Ramesh J, Cicconi S, Evans J, Yip VS, Raraty M et al (2019) A systematic review and meta-analysis of metal versus plastic stents for drainage of pancreatic fluid collections: metal stents are advantageous. *Surg Endosc* 33(5):1412–1425 PubMed Google Scholar Göttinger P, Sautner T, Kriwanek S, Beckerhinn P, Barlan M, Armbruster C et al (2002) Surgical treatment for severe acute pancreatitis: extent and surgical control of necrosis determine outcome. *World J Surg* 26(4):474–478 PubMed Google Scholar Werner J, Feuerbach S, Uhl W, Büchler MW (2005) Management of acute pancreatitis: from surgery to interventional intensive care. *Gut*. 54(3):426–436 CAS PubMed PubMed Central Google Scholar Babu RY, Gupta R, Kang M, Bhasin DK, Rana SS, Singh R (2013) Predictors of surgery in patients with severe acute pancreatitis managed by the step-up approach. *Ann Surg* 257(4):737–750 PubMed Google Scholar Mier J, Luque-De León E, Castillo A, Robledo F, Blanco R (1997) Early versus late necrosectomy in severe necrotizing pancreatitis. *Am J Surg* 173(2):71–75 CAS PubMed Google Scholar van Brunschot S, Bakker OJ, Bollen TL, Boermeester MA, Bruno MJ et al (2016) Diagnostic strategy and timing of intervention in infected necrotizing pancreatitis: an international expert survey and case vignette study. *HPB* 18(1):49–56 PubMed Google Scholar Nieuwenhuijs VB, Besselink MGH, Van Minnen LP, Gooszen HG (2003) Surgical management of acute necrotizing pancreatitis: a 13-year experience and a systematic review. *Scand J Gastroenterol Suppl* 239:111–116 Google Scholar Sarr MG, Nagorney DM, Mucha P, Farnell MB, Johnson CD (1991) Acute necrotizing pancreatitis: management by planned, staged pancreatic necrosectomy/debridement and delayed primary wound closure over drains. *Br J Surg* 78(5):576–581 CAS PubMed Google Scholar Beger HG, Büchler M, Bittner R, Block S, Nevalainen T, Roscher R (1988) Necrosectomy and postoperative local lavage in necrotizing pancreatitis. *Br J Surg* 75(3):207–212 CAS PubMed Google Scholar Büchler MW, Gloor B, Müller CA, Friess H, Seiler CA, Uhl W (2000) Acute necrotizing pancreatitis: treatment strategy according to its status of infection. *Ann Surg* 232(5):619–622 PubMed PubMed Central Google Scholar Del Castillo CF, Rattner DW, Makary MA, Mostafavi A, McGrath D, Warshaw AL (1998) Debridement and closed packing for the treatment of necrotizing pancreatitis. *Ann Surg* 228(5):676–684 Google Scholar Rodriguez JR, Razo AO, Targarona J, Thayer SP, Rattner DW, Warshaw AL et al (2008) Debridement and closed packing for sterile or infected necrotizing pancreatitis: insights into indications and outcomes in 167 patients. *Ann Surg* 247(2):294–299 PubMed PubMed Central Google Scholar Husu HL, Kuronen JA, Leppäniemi AK, Mentula PJ (2020) Open necrosectomy in acute pancreatitis—obsolete or still useful? *World J Emerg Surg* 15(1):21. PubMed PubMed Central Google Scholar Block S, Maier W, Clausen C, Büchler M, Malfertheiner P, Beger HG (1985) Diagnosis of necrotizing pancreatitis. Comparison of contrast-enhanced CT and ultrasound in a clinical study. *Dtsch Med Wochenschr* 110(21):826–832 CAS PubMed Google Scholar London NJM, Neoptolemos JP, Lavelle J, Bailey I, James D (1989) Contrast-enhanced abdominal computed tomography scanning and prediction of severity of acute pancreatitis: a prospective study. *Br J Surg* 76(3):268–272 CAS PubMed Google Scholar Balthazar EJ, Robinson DL, Megibow AJ, Ranson JHC (1990) Acute pancreatitis: value of CT in establishing prognosis. *Radiology*. 174(2):331–336 CAS PubMed Google Scholar Wang PF, Liu ZW, Cai SW, Su JJ, He L, Feng J et al (2018) Usefulness of three-dimensional visualization technology in minimally invasive treatment for infected necrotizing pancreatitis. *World J Gastroenterol* 24(17):1911–1918 PubMed PubMed Central Google Scholar van Santvoort HC, Besselink MGH, Horvath KD, Sinanan MN, Bollen TL, van Ramshorst B et al (2007) Videoscopic assisted retroperitoneal debridement in infected necrotizing pancreatitis. *HPB*. 9(2):156–159 PubMed PubMed Central Google Scholar Bang JY, Arnoletti JP, Holt BA, Sutton B, Hasan MK, Navaneethan U et al (2019) An endoscopic transluminal approach, compared with minimally invasive surgery, reduces complications and costs for patients with necrotizing pancreatitis. *Gastroenterology*. 156(4):1027–1040.e3 PubMed Google Scholar Van Santvoort HC, Bakker OJ, Bollen TL, Besselink MG, Ahmed Ali U, Schrijver AM et al (2011) A conservative and minimally invasive approach to necrotizing pancreatitis improves outcome. *Gastroenterology*. 141(4):1254–1263 PubMed Google Scholar Luckhurst CM, El Hechi M, Elsharkawy AE, Eid AL, Maurer LR, Kaafarani HM et al (2020) Improved mortality in necrotizing pancreatitis with a multidisciplinary minimally invasive step-up approach: comparison with a modern open necrosectomy cohort. *J Am Coll Surg* 230:873–883 PubMed Google Scholar Baron TH, DiMaio CJ, Wang AY, Morgan KA (2020) American Gastroenterological Association clinical practice update: management of pancreatic necrosis. *Gastroenterology*. 158(1):67–75.e1 CAS PubMed Google Scholar Van Minnen LP, Besselink MGH, Bosscha K, Van Leeuwen MS, Schipper MEI, Gooszen HG (2004) Colonic involvement in acute pancreatitis: a retrospective study of 16 patients. *Dig Surg* 21(1):33–38 PubMed Google Scholar Gao L, Zhang J-Z, Gao K, Zhou J, Li G, Li B-Q et al (2020) Management of colonic fistulas in patients with infected pancreatic necrosis being treated with a step-up approach. *HPB (Oxford)* 2020:S1365–182X(20)30108-8 Google Scholar Flati G, Andrén-Sandberg Å, La Pinta M, Porowska B, Carboni M (2003) Potentially fatal bleeding in acute pancreatitis: pathophysiology, prevention, and treatment. *Pancreas*. 26(1):8–14 PubMed Google Scholar Connor S, Alexakis N, Raraty MGT, Ghaneh P, Evans J, Hughes M et al (2005) Early and late complications after pancreatic necrosectomy. *Surgery*. 137(5):499–505 CAS PubMed Google Scholar Neoptolemos JP, London NJM, Carr-Locke DL (1993) Assessment of main pancreatic duct integrity by endoscopic retrograde pancreatography in patients with acute pancreatitis. *Br J Surg* 80(1):94–99 CAS PubMed Google Scholar van Dijk SM, Timmerhuis HC, Verdonk RC, Reijnders E, Bruno MJ, Fockens P et al (2019) Treatment of disrupted and disconnected pancreatic duct in necrotizing pancreatitis: a systematic review and meta-analysis. *Pancreatology*. 19(7):905–915 PubMed Google Scholar Da Costa DW, Bouwense SA, Schepers NJ, Besselink MG, Van Santvoort HC, Van Brunschot S et al (2015) Same-admission versus interval cholecystectomy for mild gallstone pancreatitis (PONCHO): a multicentre randomised controlled trial. *Lancet* 386(10000):1261–1268 PubMed Google Scholar Nealon WH, Bawdujak J, Walsler EM (2004) Appropriate timing of cholecystectomy in patients who present with moderate to severe gallstone-associated acute pancreatitis with peripancreatic fluid collections. *Ann Surg* 239(6):741–751 PubMed PubMed Central Google Scholar Page 2 From: Severe acute pancreatitis: surgical indications and treatment Causes Sub-types Comments Gallstones 40–65% Toxic-metabolic Alcohol 25–40% Risk factor Tobacco smoking Risk factor Hypercalcemia Hyperparathyroidism Hypertriglyceridemia Not hyperlipidemia Caution: alcohol pancreatitis can induce hypertriglyceridemia Chronic kidney disease Medications Acne treatments—tetracycline, isotretinoin, Roaccutane, cannabis, carbimazole, furosemide, isoniazid, metronidazole, simvastatin Definite causality; others Chemotherapy Radiation Porphyria Acute intermittent porphyria Erythropoietic protoporphyria Toxins Scorpion sting—Trinidad thick-tailed scorpion (Tityus trinitatis). Snake bites—adder (Vipera berus), common krait (Bungarus caeruleus), viper (Cerastes cerastes). Hymenoptera—hornets. Chemical Penetrating duodenal or gastric peptic ulcers. Idiopathic Early onset Late onset 10–30% Not gene-related Obstructive Ampullary stenosis/tumors, main duct strictures; pancreatic tumors, IPMN, lymphoma, pancreas divisum with duct narrowing, annular pancreas, pancreatobiliary maljunction, choledochocoele, intraluminal duodenal diverticulum Trauma Blunt abdominal, iatrogenic surgical—renal surgery, organ transplantation, partial pancreatectomy, Iatrogenic endoscopic—ERCP, EUS biopsy Genetic Hereditary pancreatitis PRSS1 gene mutations CPA1 gene mutations Autosomal dominant Highly penetrant Cystic fibrosis Autosomal recessive Genetic risk factors SPINK1, CFTR, CTRC, CEL, CPA1, and PRSS1 gene variants and/or mutations Increase risk in alcohol and idiopathic acute pancreatitis Autoimmune Autoimmune pancreatitis—predominantly type II. Syndromic —SLE, vasculitis Infection Viruses—Coxsackie B, CMV, Covid19, EBV, Hep B, HIV, HSV, mumps, varicella-zoster. Bacteria—Legionella, leptospira, mycoplasma, salmonella. Fungi—aspergillus. Parasites—ascaris, cryptosporidium, toxoplasma, clonorchiasis. Ischemia and embolism Cardiac surgery, abdominal aorta dissection







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