CONDITION

Toxic megacolon

Toxic megacolon is a dangerous widening of the colon caused by severe inflammation and illness throughout the body.

WHAT IT IS
Severely inflamed and enlarged colon with body-wide illness

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Swollen abdomen, severe pain, fever, rapid heartbeat

WHAT CAUSES IT
Severe bowel inflammation, often immune or infectious

HOW IT IS DIAGNOSED
Abdominal X-ray or CT with clinical assessment

MAIN TREATMENT
Hospital medicines, supportive care, and sometimes surgery

CAN IT BE CURED?
Sometimes - surgery removes the affected colon

IS IT AN EMERGENCY?
Yes - urgent hospital treatment is always needed

LONG-TERM OUTLOOK
Often recoverable, but complications can be life-threatening

Overview

Toxic megacolon is a severe complication of inflammation in the colon, also called the large bowel. The inflamed colon becomes unusually wide and loses some of its ability to move gas and waste forward. At the same time, the inflammation causes illness throughout the body.

"Toxic" does not mean that someone has swallowed a poison. It refers to body-wide effects such as fever, a fast heart rate, low blood pressure, confusion, or abnormal blood test results.

Toxic megacolon most often develops during severe ulcerative colitis, Crohn's colitis, or an infection of the colon. It can progress quickly and may cause a hole in the bowel, known as a perforation. For this reason, suspected toxic megacolon always needs emergency assessment and hospital care.

The condition is different from long-term enlargement of the colon caused by constipation, nerve disorders, or a physical blockage. Toxic megacolon specifically combines widening of the colon with severe inflammation and signs that the whole body is unwell.

Symptoms

Symptoms often develop over hours or days during a serious flare of bowel inflammation or infectious diarrhoea.

Possible symptoms include:

Diarrhoea may sometimes slow or stop as the colon loses its normal movement. This is not necessarily a sign that the inflammation is improving, especially if abdominal swelling or pain is getting worse.

Symptoms can look different in someone taking corticosteroids or medicines that weaken the immune system. For example, fever or abdominal tenderness may be less obvious even when the condition is serious.

Toxic megacolon cannot be confirmed from symptoms alone. Other emergencies, including bowel obstruction, perforation, appendicitis, or severe infection, can cause similar symptoms.

- Increasing abdominal swelling or tightness
- Moderate to severe abdominal pain or tenderness
- Fever
- A fast heartbeat
- Frequent diarrhoea, which may contain blood
- Weakness, dizziness, or dehydration
- Nausea or vomiting
- Confusion, unusual sleepiness, or feeling extremely unwell

Causes and risk factors

Toxic megacolon results from intense inflammation that reaches the deeper muscle layers of the colon. The colon becomes weak, stops contracting normally, and fills with gas or fluid.

Inflammatory bowel disease is a major cause. This includes ulcerative colitis and Crohn's disease affecting the colon. Toxic megacolon may be the first sign of inflammatory bowel

disease, but it more often occurs during a severe flare.

Infections can also cause it. One important cause is Clostridioides difficile , often shortened to C. difficile . This bacterium can inflame the colon, particularly after antibiotic use or healthcare exposure. Other bacterial and parasitic infections can occasionally cause the condition. Cytomegalovirus, or CMV, may contribute in people whose immune systems are suppressed.

Factors that may increase risk or worsen severe colitis include:

These factors do not usually cause toxic megacolon by themselves. They become important when severe inflammation is already present.

- Delayed treatment of severe bowel inflammation
- Dehydration or major disturbances in body salts such as potassium
- Medicines that slow bowel movement, including some antidiarrhoeal drugs
- Opioid pain medicines
- Some medicines with anticholinergic effects, which reduce bowel contractions
- Tests or procedures that stretch an already inflamed colon

Diagnosis

Diagnosis takes place in hospital. The clinical team looks for both an enlarged colon and signs of severe illness throughout the body.

An abdominal X-ray can show whether the colon is wider than expected and whether its normal shape has changed. A CT scan may provide more detail, help identify a perforation, and look for a physical blockage. Imaging is considered alongside symptoms, examination findings, and blood test results.

Blood tests may show anaemia, inflammation, infection, dehydration, or abnormal levels of salts and proteins. Kidney and liver tests help show how the illness is affecting other organs. Blood cultures may be taken if a bloodstream infection is possible.

Stool samples are used to look for infections, especially C. difficile . Identifying the cause helps guide treatment, but care may begin before every result is available.

A full colonoscopy is generally avoided during suspected toxic megacolon because inflating and examining the whole colon may increase the risk of perforation. In selected cases, clinicians may perform a limited flexible sigmoidoscopy. This examines only the lower part of the colon and is done cautiously, without a full bowel preparation.

Repeated examinations, blood tests, and abdominal imaging help show whether the colon is

improving or becoming more enlarged.

Treatment and management

Treatment begins immediately in hospital, often in a closely monitored ward or intensive care setting. A gastroenterology team and a colorectal surgeon are usually involved early. Surgical review does not mean that surgery will definitely be needed. It allows rapid action if medical treatment is unsuccessful.

Supportive treatment may include:

Medicines that slow the bowel, such as antidiarrhoeal drugs and opioids like oxycodone or morphine , are generally stopped. Any medicine changes are managed by the hospital team.

Treatment of the inflammation depends on its cause. Severe inflammatory bowel disease is commonly treated with corticosteroids like prednisone or hydrocortisone given through a vein. Other immune-targeting treatments may be considered if the colon does not respond. Suspected or confirmed infection is treated with suitable antimicrobial medicine. Corticosteroids do not treat infectious colitis by themselves and may be harmful in some infections, which is why identifying the cause matters.

Surgery is needed if the colon perforates, bleeding cannot be controlled, the person becomes unstable, or the condition does not improve promptly with medical treatment. The usual emergency operation removes most or all of the colon and creates an ileostomy. An ileostomy brings the end of the small bowel through an opening in the abdomen so waste can empty into a bag.

Reconstruction may be considered later for some people after they have recovered. The options depend on the underlying bowel condition, overall health, and personal preferences.

- Fluids and replacement of body salts through a vein
- Bowel rest, with food and drink adjusted according to the situation
- Treatment for pain that avoids unnecessarily slowing the bowel
- Blood clot prevention when appropriate
- Nutrition support if eating is not possible
- Frequent checks of temperature, heart rate, blood pressure, urine output, and abdominal swelling

Complications

The most serious complication is perforation. This allows bowel contents and bacteria to leak into the abdomen, causing infection of the abdominal lining and possibly sepsis. Sepsis is a dangerous body-wide response to infection.

Other possible complications include:

Toxic megacolon can be life-threatening, particularly if treatment is delayed or perforation occurs. Early hospital care improves the chance of controlling the inflammation before these complications develop.

- Severe bleeding from the colon
- Shock caused by infection, bleeding, or fluid loss
- Kidney injury from dehydration or low blood pressure
- Blood clots
- Failure of other organs
- Need for emergency removal of the colon

Prevention

Toxic megacolon cannot always be prevented. It may occur during a first episode of severe inflammatory bowel disease or despite appropriate treatment.

If you have ulcerative colitis or Crohn's disease, taking maintenance treatment as agreed and reporting a severe flare early may reduce the chance that inflammation progresses. A rapid increase in bloody diarrhoea, fever, abdominal swelling, or weakness needs prompt medical advice.

Do not try to control severe or bloody diarrhoea with over-the-counter antidiarrhoeal medicine without medical guidance. These medicines slow the colon and may be unsafe during severe colitis.

Some infectious causes can be reduced through careful handwashing and appropriate antibiotic use. Soap and water are particularly important after contact with someone who has C. difficile , because alcohol hand gel does not reliably remove its spores.

These steps may lower risk, but they cannot guarantee prevention.

Living with it and what to expect

Toxic megacolon is an acute condition rather than a problem managed at home over many years. The immediate course depends on its cause, whether complications have developed, and how quickly the colon responds to treatment.

Some people improve with medical treatment over several days. Others need urgent surgery. Hospital recovery may take longer if there has been perforation, sepsis, major blood loss, or a prolonged period without normal nutrition.

After recovery without surgery, follow-up focuses on controlling the condition that caused the episode. If the cause was inflammatory bowel disease, long-term treatment may be changed to lower the risk of another severe flare. The colon may recover its normal size and movement, but toxic megacolon can happen again if severe inflammation returns.

When an infection was the cause, the outlook is linked to whether the infection clears and whether there is an underlying bowel disorder. Follow-up may include repeat blood tests and review of bowel symptoms.

People who have had their colon removed will need time to adjust to an ileostomy. A stoma nurse can help with bag care, skin protection, hydration, food choices, work, exercise, travel, and body-image concerns. Some people may later be eligible for another operation, while others keep a permanent ileostomy.

Routine follow-up after discharge is important for reviewing medicines, nutrition, wound or stoma care, and the underlying cause. New abdominal swelling, severe pain, fever, faintness, or heavy bleeding is not a routine follow-up issue and needs urgent assessment.

When to get medical help

Toxic megacolon is always a medical emergency.

Call emergency services or go to an emergency department now if you have severe bowel symptoms together with any of the following:

Do not drive yourself if you are faint, confused, severely weak, or in intense pain. Do not take an antidiarrhoeal medicine to delay seeking care.

If you have inflammatory bowel disease and develop a clear increase in diarrhoea or bleeding without the emergency signs above, contact your usual care team promptly. Early review may help prevent a severe flare from progressing.

- A rapidly swelling or very tender abdomen
- Severe or worsening abdominal pain

- Fever with a fast heartbeat
- Heavy rectal bleeding
- Fainting, confusion, marked weakness, or unusual sleepiness
- Repeated vomiting or inability to keep fluids down
- Sudden severe pain or a hard, rigid abdomen

Common questions

Why is it called "toxic" megacolon?

"Toxic" describes the effect on the whole body, not poisoning. Severe colon inflammation can cause fever, a fast heart rate, low blood pressure, dehydration, confusion, and abnormal organ function.

Can toxic megacolon get better without surgery?

Yes, some cases improve with intensive medical treatment. Surgery is required when there is perforation, uncontrolled bleeding, worsening instability, or failure to improve. Hospital teams involve a surgeon early because the situation can change quickly.

How quickly can toxic megacolon develop?

It can develop over hours or several days during severe colitis. Increasing abdominal swelling, worsening pain, fever, or a rapid heartbeat need urgent assessment, even if diarrhoea has slowed.

Is toxic megacolon the same as severe constipation?

No. Constipation can enlarge the colon, but toxic megacolon involves severe inflammation and body-wide illness. A physical blockage and long-term disorders of colon movement are different conditions that require different treatment.

Can I eat or drink if toxic megacolon is suspected?

Do not delay emergency care to try dietary treatment. Food and fluid intake may need to be limited or adjusted in hospital while the bowel is assessed. Fluids and nutrition can be provided in other ways when needed.

Can toxic megacolon come back?

It can recur if the colon remains in place and severe inflammation returns. The risk is linked to the underlying cause and how well it can be controlled. Removing the colon prevents toxic megacolon from recurring in that organ.

Sources

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