Symptoms of a Pulmonary Contusion After a Car Accident

A Bruised Lung Can Worsen Over the First 24 to 48 Hours Even When the First Chest X-Ray Looks Reassuring

Your chest hurts after the crash, but at first it feels like something you can explain: the seat belt locked across your ribs, the airbag hit hard, or your body struck the steering wheel. Then breathing starts to feel different. You can't take a full breath without pain. You get winded walking across the room. A cough develops, your breathing speeds up, or a pulse oximeter shows that your oxygen level isn't where it should be.

Those symptoms can point to a pulmonary contusion, which is essentially a bruise of the lung caused by trauma. The injury involves bleeding and swelling within lung tissue without a major laceration. Merck Manual notes that chest pain, shortness of breath, and worsening hypoxia are common features, and that the respiratory effects can become more noticeable over time.

At Gary Martin Hays & Associates, our Georgia car accident lawyers know why the timing matters. A person can have substantial blunt chest trauma, an early X-ray that doesn't yet show the full injury, and breathing problems that become more obvious hours later. The medical record has to capture that progression instead of treating the first image as the entire story.

What Is a Pulmonary Contusion?

A pulmonary contusion happens when blunt force damages tiny blood vessels and the air-exchanging tissue inside the lung. Blood and fluid leak into the interstitial tissue and alveoli, making it harder for oxygen to move efficiently from the lungs into the bloodstream.

The lung doesn't have to be punctured for that to happen. A high-energy impact can transmit force through the chest wall even when there isn't an open wound. That's why a pulmonary contusion can occur alongside chest pain, rib fractures, a sternum injury, pneumothorax, hemothorax, or other thoracic trauma.

The injury can range from a small area that needs observation and supportive care to a large contusion that interferes with oxygenation and contributes to respiratory failure. The size of the bruised area, associated injuries, age, underlying lung disease, and overall trauma burden can all affect how serious the clinical course becomes.

Symptoms Can Be Mild at First and Worse Hours Later

One of the most important features of a pulmonary contusion is that it can evolve. Severe injuries may cause breathing distress early, but milder contusions can become symptomatic

gradually over the first day or two. The National Library of Medicine notes that mild symptoms may develop over 24 to 48 hours and that radiographic findings can lag behind the injury.

That delayed pattern is different from simply being sore the day after a crash. The concern is that swelling and bleeding inside the lung can interfere with oxygen exchange as the contusion evolves.

The table below shows some of the symptoms that may appear after blunt chest trauma and why they deserve medical attention.

Symptom	What You May Notice	Why It Matters
Shortness of Breath	You get winded more easily, can't take a satisfying deep breath, or feel like breathing takes more effort.	A pulmonary contusion can reduce oxygen exchange as swelling and bleeding develop inside the lung.
Chest Pain	Pain may worsen when you inhale deeply, cough, move, or press on the injured chest wall.	The pain may come from associated rib or chest-wall trauma, and severe pain can cause shallow breathing that makes lung function worse.
Rapid Breathing	You notice you're breathing faster even while resting.	Tachypnea can be a response to low oxygen, pain, or increasing respiratory stress.
Low Oxygen Saturation	A pulse oximeter shows a lower reading, or clinicians note hypoxia.	Falling oxygen can indicate that the bruised lung isn't transferring oxygen efficiently.
Cough	A new cough appears after the crash, sometimes with mucus and, in more severe injuries, blood.	Coughing can accompany lung injury and should be evaluated in the context of blunt chest trauma.
Fast Heart Rate	Your pulse stays elevated even when you're not moving.	Tachycardia can occur with pain, low oxygen, blood loss, or the body's response to trauma.
Blue Lips or Skin	The lips, fingertips, or skin take on a bluish color.	Cyanosis can signal significant oxygen deprivation and requires urgent medical care.
Increasing Fatigue or Confusion	You become unusually weak, sleepy, restless, or confused.	Advanced hypoxia can affect the brain and may signal worsening respiratory compromise.

Why Can a Pulmonary Contusion Be Delayed?

The crash causes the injury at the moment of impact, but the physiologic effects don't always peak immediately. Damaged capillaries leak blood and fluid, inflammation develops, and the affected lung tissue becomes less effective at exchanging oxygen.

That progression is why thoracic trauma guidance describes pulmonary contusions as injuries that can evolve over the first 24 to 48 hours. The person may be talking normally at the scene, then become progressively more short of breath as the lung injury declares itself.

This isn't unique to lung trauma. Many delayed injury symptoms after a Georgia car accident become more apparent once adrenaline wears off or the underlying injury evolves. With a pulmonary contusion, though, new or worsening breathing difficulty is a reason for urgent medical evaluation, not something to wait out at home.

How Does a Car Accident Bruise the Lung?

The lungs sit inside a protective rib cage, but a collision can transfer enormous force through that structure. The chest can be compressed between the seat belt and seat, strike the steering wheel or dashboard, or deform as the vehicle suddenly changes speed.

- **Seat Belt Loading:** A properly worn seat belt can prevent far more serious injury, but the restraint still has to absorb crash energy. Significant belt force across the chest can occur with rib, sternum, and lung injuries in a severe collision.
- **Steering Wheel Or Dashboard Impact:** An unrestrained or partially restrained occupant may strike the front interior of the vehicle with enough force to injure the chest wall and underlying lung.
- **Side-Impact Compression:** Intrusion into the occupant compartment can compress one side of the chest and transfer force directly into the ribs and lung.
- **Airbag And Combined Restraint Forces:** Airbags reduce the risk of many severe injuries, but in a high-energy crash the occupant can still sustain blunt thoracic trauma from the combined collision forces.
- **Crush Trauma:** A severe rollover or structural intrusion can compress the chest for long enough to cause extensive pulmonary and chest-wall injury.

Serious seat belt injuries can include a pulmonary contusion when substantial restraint force is transmitted through the chest during a crash.

A Pulmonary Contusion Often Comes With Other Chest Injuries

A bruised lung rarely exists in a vacuum after a high-energy collision. The same impact can fracture ribs, injure the sternum, collapse a lung, cause blood to collect in the chest, or damage the heart and other structures.

Broken ribs are especially important because they can make every breath painful. When someone starts splinting the chest and taking shallow breaths to avoid pain, it becomes harder to expand the lungs, cough effectively, and clear secretions.

A pneumothorax creates a different problem: air escapes into the space around the lung and can cause partial or complete collapse. A hemothorax involves blood in that space. Both can coexist with a pulmonary contusion and can change what the treatment team needs to do.

That's why a diagnosis of “chest wall contusion” shouldn't automatically end the workup when a patient has worsening shortness of breath, falling oxygen, abnormal breath sounds, significant blunt trauma, or other signs that the problem may extend deeper than the ribs and muscles.

Why an Early Chest X-Ray Can Miss Part of the Injury

Chest X-rays are fast and useful in trauma care, but pulmonary contusions don't always become visible on them immediately. According to the National Library of Medicine, radiographic changes can be delayed for roughly 6 to 48 hours after injury.

CT is more sensitive. A recent review of chest trauma imaging notes that CT can identify pulmonary contusions, pneumothorax, hemothorax, and other injuries that may be harder to characterize on a first-line chest radiograph.

That doesn't mean every person with chest soreness needs a CT scan. Imaging decisions depend on the mechanism, examination, oxygen level, associated injuries, and the clinician's judgment. The important point is narrower: a normal early X-ray isn't the same thing as proof that the lung was never bruised.

There is another nuance. A 2024 systematic review of CT-based pulmonary contusion assessment notes that even CT performed immediately after trauma can underestimate the eventual extent because the contusion itself develops over time. That makes serial clinical observation especially important in a patient whose breathing or oxygen level is changing.

How Do Doctors Diagnose a Pulmonary Contusion?

Diagnosis usually comes from the combination of the crash mechanism, symptoms, physical examination, oxygen measurements, and imaging. There isn't a single blood test that says “pulmonary contusion.”

- **Pulse Oximetry:** A sensor on the finger measures oxygen saturation and helps clinicians watch for hypoxia over time.
- **Chest X-Ray:** An X-ray can show patchy lung opacities and associated injuries, but the contusion may not be visible immediately.
- **Chest CT:** CT can detect pulmonary contusion earlier and show how much lung is involved, while also identifying other thoracic injuries.
- **Blood Gas Testing:** In a patient with significant respiratory compromise, arterial blood gases can provide more detailed information about oxygenation and ventilation.

- **Lung Examination:** Doctors listen for abnormal or decreased breath sounds and look at respiratory rate, effort, chest-wall movement, and signs of distress.
- **Repeat Assessment:** Because the injury can evolve, worsening symptoms, oxygen requirements, or imaging findings may become more important than the first snapshot taken after the crash.

Pulmonary Contusion and Pneumonia Can Look Similar on Imaging

This is one of the more technical problems in the hospital record. Both pulmonary contusion and pneumonia can create areas of opacity on chest imaging, but they don't arise for the same reason and don't follow the same timeline.

A pulmonary contusion appears after trauma because blood and edema collect in injured lung tissue. Pneumonia is an infection. The National Library of Medicine says that contusions can cross normal lung fissures, while pneumonia is more often confined by anatomic boundaries.

Timing can help too. A new opacity seen soon after major blunt trauma may fit a contusion, while fever, rising white blood cell count, sputum changes, and a later evolving infiltrate may raise more concern for pneumonia. In real trauma care, the two can overlap because a person with a serious lung injury can later develop pneumonia as a complication.

How Is a Bruised Lung Treated?

There isn't a procedure that removes the bruise itself. Most treatment is supportive while the damaged lung tissue heals.

Merck Manual identifies pain control and supplemental oxygen as core treatments, with mechanical ventilation needed in some severe cases. The reason pain control matters is practical: if every deep breath hurts, the person may breathe shallowly, avoid coughing, and increase the risk of atelectasis and retained secretions.

- **Oxygen:** Supplemental oxygen can support patients whose saturation falls because the contused lung isn't exchanging oxygen efficiently.
- **Pain Control:** Adequate analgesia can make it easier to breathe deeply, cough, and move without splinting the chest.
- **Deep Breathing And Incentive Spirometry:** These measures help expand the lungs and reduce complications from shallow breathing and immobility.
- **Respiratory Support:** CPAP, BiPAP, or invasive mechanical ventilation may be required when oxygenation or breathing effort becomes inadequate.
- **Treatment Of Associated Injuries:** Rib fractures, pneumothorax, hemothorax, flail chest, or other trauma may need their own interventions.

The treatment plan depends on the severity of the lung injury and the rest of the trauma. A small contusion in a healthy person may need observation and supportive care, while a larger injury in someone with multiple rib fractures or underlying lung disease can require intensive monitoring.

What Complications Can Develop?

The main danger isn't the word “bruise.” It's the effect the injury has on breathing and the complications that can follow.

- **Hypoxemia:** Blood oxygen can fall when damaged alveoli fill with blood and fluid and can't exchange gases normally.
- **Atelectasis:** Pain, shallow breathing, and mucus retention can cause parts of the lung to collapse.
- **Pneumonia:** Poor cough, immobility, retained secretions, and significant lung injury can increase the risk of infection.
- **Acute Respiratory Distress Syndrome:** Severe pulmonary injury can contribute to ARDS, a life-threatening form of respiratory failure.
- **Mechanical Ventilation:** Some patients need temporary ventilatory support when supplemental oxygen isn't enough.
- **Longer Hospitalization:** Associated rib, chest, and internal injuries can turn what initially seemed like a single chest injury into a much longer recovery.

Merck identifies pneumonia and ARDS among the later complications of more serious pulmonary contusions. That risk is one reason close monitoring matters when oxygenation or breathing gets worse rather than better.

When Should You Go to the Emergency Room?

Any significant breathing problem after blunt chest trauma deserves prompt medical attention. This isn't the kind of injury to diagnose from bruising on the skin or from how damaged the vehicle looks.

Seek urgent medical care if you develop worsening shortness of breath, rapid breathing, blue lips or fingertips, coughing up blood, fainting, confusion, severe chest pain, falling oxygen saturation, or an inability to take a full breath.

Even if symptoms feel milder, going to the hospital after a car accident may be appropriate when the crash involved major chest impact, airbag or seat-belt force, a suspected rib fracture, or breathing symptoms that weren't present before the collision.

How Do You Connect a Pulmonary Contusion to the Crash?

Unlike a chronic pain condition that may be diagnosed months later, a pulmonary contusion usually exists within a relatively tight trauma timeline. The legal dispute can still focus on whether the lung injury was caused by the collision, how severe it was, and whether the treatment and time away from work were reasonable.

- **Crash Mechanism:** Vehicle damage, seat-belt marks, airbag deployment, steering-wheel impact, side intrusion, and emergency records can help establish the force applied to the chest.
- **Early Symptoms:** Chest pain, shortness of breath, cough, rapid breathing, or low oxygen documented soon after the crash help connect the pulmonary problem to the trauma.
- **Serial Oxygen Readings:** A pattern of falling oxygen saturation or increasing oxygen requirements can show how the injury evolved after the initial evaluation.
- **Imaging Timeline:** The first X-ray, later X-rays, and CT findings can demonstrate why a contusion wasn't obvious at the earliest stage.
- **Associated Injuries:** Rib fractures, sternum injury, pneumothorax, or other chest trauma can support the same blunt-force mechanism.
- **Hospital Course:** Respiratory therapy, oxygen, pain control, ICU monitoring, and any ventilatory support document what the injury actually required.

That timeline is one reason seeing a doctor promptly matters after significant chest trauma. When respiratory symptoms don't appear until later, the earlier records can still establish the mechanism and baseline from which the condition changed.

A Pulmonary Contusion Can Interrupt Work Even After the Immediate Danger Passes

A person doesn't have to be on a ventilator for a bruised lung to disrupt daily life. Deep breathing can hurt, sleep can be difficult, and ordinary walking may leave someone unusually winded. If there are rib fractures or other chest injuries, coughing, bending, lifting, driving, and even getting in and out of bed can remain painful.

Jobs that involve lifting, climbing, construction, warehouse work, healthcare, law enforcement, driving, or sustained physical exertion may be impossible during recovery. Hospitalization itself can also create a significant period of missed work.

When a pulmonary contusion and associated injuries keep someone away from work, lost wages become part of the damages analysis along with emergency care, imaging, hospitalization, respiratory treatment, follow-up appointments, and the physical effects of the injury.

Our Georgia Car Accident Lawyers Can Build the Chest-Injury Timeline

A pulmonary contusion is a good example of why the first emergency-room image shouldn't be read in isolation. The chest took the hit, the early X-ray may have been nondiagnostic, oxygen levels may have changed, and later imaging may have shown the lung injury more clearly. Those facts belong in one timeline.

At Gary Martin Hays & Associates, we can review the crash mechanism, emergency records, oxygen readings, imaging, associated rib or chest injuries, hospitalization, follow-up care, and the time the injury kept you from working. When an insurance company focuses on one normal early study or argues that the later respiratory symptoms came from somewhere else, the full sequence of medical evidence matters.

If you developed shortness of breath, chest pain, low oxygen, or other breathing problems after a Georgia car accident, contact us online for a free consultation. We can review what happened, how the lung injury developed, and what medical and factual evidence may be needed to document the full impact of the crash.