

This Is What Happens With Pulmonary Embolism

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A clot from one part of the body traveling the bloodstream to another part of the body is an embolus. Pulmonary embolism (PE) is abrupt blockage of arterial circulation in lungs, when an embolus obstructs blood flow in an artery. This occurs in the main pulmonary artery, carrying blood from the heart to the lungs, or in one of the smaller arteries.

In 50% of cases, blockage is a blood clot initiating in the deep veins of the body, usually the legs, called deep vein thrombosis (DVT). The DVT goes to the right side of the heart, and lodges in the pulmonary artery. Other sources are an air bubble from a central vein catheter, amniotic fluid dislodged in labor, foreign bodies like talc used during IV drug use, septic emboli as in acute endocarditis, or tumor cells. When a large bone (like a thigh bone) breaks, fat from bone marrow in the blood, reaches the lungs, and can cause PE.

PE causes lung damage from death of lung tissue (pulmonary infarction). A massive PE puts stress on the right ventricle and stops the entire circulatory system, triggering cardio-pulmonary arrest and death. Left untreated, 30 % of patients die, and 3% - 8% of those treated die within 30 days. Those who die do so within the first few hours of the event.

Symptoms include: shortness of breath (dyspnea), rapid breaths (tachypnea), chest pain, coughing or coughing up blood (hemoptysis), leg pain and/or swelling, low-grade fever, bluish skin (cyanosis), wheezing, sweating, anxiety, fainting (syncope), rapid pulse (tachycardia), arrhythmia (irregular heartbeat), abnormal lung sounds (rales) or an abnormal fourth heart sound; with massive PE, signs of shock (cold and clammy skin, weak pulse, low blood pressure). Some people have feelings of impending doom (anxiety, dread, light-headedness, fainting, tachypnea, sweating, tachycardia).

Computed tomography (CT) scans look for blood clots. Dye injected into an arm vein makes blood vessels in the lungs and legs show up on x-ray images. The patient lies on a table, and an x-ray tube will rotate around them. The tube takes pictures from many angles. This test allows doctors to detect most cases of PE. The test only takes a few minutes. Results are available shortly after the scan is done.

Thrombolytics dissolve clots, but can cause sudden bleeding and are used only in lifethreatening situations. Doctors may use a catheter inserted into a vein in the groin or arm and threaded to the clot in the lung. They use the catheter to remove the clot or deliver medicine to dissolve it. Rarely, surgery may be needed to remove the blood clot. Krug Consulting was founded by Sandra Krug, RRT, CRNA Legal Nurse Consultant.

AREAS OF PRACTICE: Nursing Malpractice, Personal Injury, Product Liability, Toxic Tort and Environment. Worker's Compensation and Workplace Injury, Criminal Negligence, Health. Illnessor Injury-related Legalaction, Risk Management, Nursing Home Abuse, Fraud and Abuse Compliance and HIPPA. Elder Law

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Pulmonary Embolism

Pulmonary embolism is a serious condition that can cause

- permanent damage to the affected lung,
- low oxygen levels in your blood,
- damage to other organs in your body from not getting enough oxygen, and
- if a clot is large, or if there are many clots, pulmonary embolism can cause death.

Risk Factors for PE include:

- After some types of surgery
- Immobility of lower extremities, such as during a long trip in a car or airplane
- Being bedridden (must stay in bed for an extended time), or unable to move around much
- Inherited conditions, such as factor V Leiden
- Diseases such as a stroke, paralysis, chronic heart disease, high blood pressure, CHF, COPD
- Lower extremity or pelvic trauma
- Bone fractures
- Smoking
- Autoimmune disease
- Recently treated for cancer
- People with central venous catheters (tube placed in a vein for access to bloodstream for medical treatment) are more likely to develop DVT, increasing risk for PE.
- Pregnancy and the 6-week period after pregnancy
- Women who take hormone therapy pills or birth control pills
- Obesity

Preventing PE begins with preventing DVT.

- Exercise lower leg muscles.
- Take medicines to prevent clots.
- Use compression stockings to prevent swelling in legs from DVT.

Graduated compression stockings reduce swelling that a blood clot in the leg may cause. They are worn on the legs from the arch of the foot to just above or below the knee. These stockings are tight at the ankle and become looser as they go up the leg. This causes gentle compression (pressure) up the leg. The pressure keeps blood from pooling and clotting.

When you have cases involving serious medical conditions. Contact Krug Consulting at info@LNCKRUG.com to assist with your case analysis and medical research. Our experienced nurses are eager to assist.

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