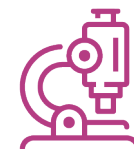


SUPERIOR VENA CAVA SYNDROME is the obstruction of blood flow through the superior vena cava.

### RISK FACTORS

- ☒ Intrathoracic malignancy, particularly lung (non-small cell lung cancer: 50% of cases; small cell lung cancer: 25%–35% of cases) and non-Hodgkin lymphoma (diffuse large B-cell lymphoma and lymphoblastic lymphoma: 10%–15% of cases)
- ☒ Thrombosis associated with catheters or pacemaker wires
- ☒ Rare causes: metastatic breast cancer, Hodgkin lymphoma, or other



### CAUSES/ PATHOPHYSIOLOGY

- ☒ Solid tumor compression of the superior vena cava either by external compression from tumor or lymph nodes or direct invasion of the superior vena cava by thrombosis or tumor
- ☒ Causes venous congestion, leading to obstruction of blood return from the upper body
- ☒ Cardiac output potentially affected by poor blood return to the heart

### SIGNS & SYMPTOMS

- ☒ Facial swelling or head fullness (worse with bending down)
- ☒ Edema in the face, chest, neck, and upper extremities
- ☒ Headache
- ☒ Dyspnea and cough
- ☒ Distended veins in the chest
- ☒ Ruddy complexion
- ☒ Tachypnea; plethora
- ☒ Severe or life-threatening: confusion, obtundation from cerebral edema, stridor from laryngeal edema or hemodynamic compromise



### BEST PRACTICE

Prompt intervention can avoid life-threatening outcomes.



### DIAGNOSTIC ASSESSMENT

- ☒ Chest computed tomography with contrast
- ☒ Chest x-ray
- ☒ Ultrasound followed by tissue diagnosis as indicated

### NURSING CONSIDERATIONS

- ☒ Assess for respiratory, cardiovascular, or neurologic compromise.
- ☒ Supportive care includes cardiovascular and respiratory support as needed.
- ☒ Symptom management addresses dyspnea with oxygen, elevation of head of bed, and anxiety management.
- ☒ Potentially treat underlying disease with radiation therapy, chemotherapy, or stenting.
- ☒ Thrombus is to be treated with anticoagulants or thrombolytics.
- ☒ Provide psychosocial support for symptoms and new or worsening cancer diagnosis.



### ADDITIONAL RESOURCES

- Brant, J.M., & Walton, A. (2005). Superior vena cava syndrome: An education sheet for patients. *Clinical Journal of Oncology Nursing*, 9(4), 479–480. <https://doi.org/10.1188/05.CJON.479-480>
- Flounders, J.A. (2003). Oncology emergency modules: Superior vena cava syndrome. *Oncology Nursing Forum*, 30(4), E84–E90. <https://doi.org/10.1188/03.ONF.E84-E90>
- Kaplan, M. (2016). Structural oncology emergencies. In B. Gobel, S. Triest-Robertson, & W. Vogel (Eds.), *Advanced oncology nursing certification review and resource manual* (2nd ed., pp. 693–736). Oncology Nursing Society.
- National Cancer Institute. (2019). Superior vena cava syndrome. [https://www.cancer.gov/about-cancer/treatment/side-effects/cardiopulmonary-hp-pdq#\\_97](https://www.cancer.gov/about-cancer/treatment/side-effects/cardiopulmonary-hp-pdq#_97)
- Shelton, B.K. (2018). Superior vena cava syndrome. In M. Kaplan (Ed.), *Understanding and managing oncologic emergencies: A resource for nurses* (3rd ed., pp. 561–587). Oncology Nursing Society.