Where to insert

-for difficult anatomy or patients, bougie guided chest tubes are helpful

-You both hands on your kelly clamps to prevent going to deep, lock your elbows to your hips, and your weight to punch through the fascia

-sweep with your finger 360 and touch lung if possible to break up any adhesions and confirm your in the correct space

- while inserting the chest tube, aim apically and rotate the chest tube 360-720 to make sure the chest tube isnt kinked or caught on any structures

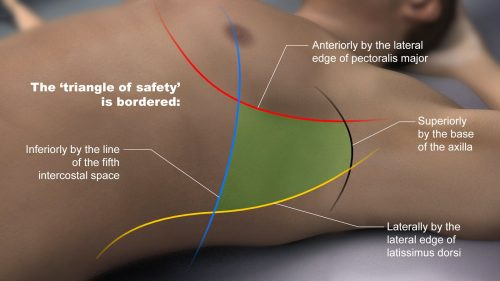
-more studies are showing 20fr chest tubes are adequate for trauma and are less painful for patients. Empyemas are indications for larger bore chest tubes.

([https://emcrit.org/wp-content/uploads/2021/12/The\_small\_\_14\_Fr\_\_percutaneous\_catheter\_\_P\_CAT\_.6.pdf](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Femcrit.org%2Fwp-content%2Fuploads%2F2021%2F12%2FThe_small__14_Fr__percutaneous_catheter__P_CAT_.6.pdf&data=04%7C01%7Cwjnoelii%40temple.edu%7C69f350593ab84dfa704208da1b3d01fe%7C716e81efb52244738e3110bd02ccf6e5%7C0%7C0%7C637852246695271293%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=kZFmrjddwrUbeUb%2Fe4KidF5ErS4JyS3mqrgOgarAKjw%3D&reserved=0))

-always better to go higher than lower to avoid diaphragm injury, especially in abdominal crush injuries

- Going 1-2 rib spaces above incision site can help guide tube apically

- NEVER cut breast tissue, displace the breast

-[](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fi0.wp.com%2Femcrit.org%2Fwp-content%2Fuploads%2F2017%2F10%2FsafeTriangle_v2_default.jpg&data=04%7C01%7Cwjnoelii%40temple.edu%7C69f350593ab84dfa704208da1b3d01fe%7C716e81efb52244738e3110bd02ccf6e5%7C0%7C0%7C637852246695271293%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=g2Np%2FjKfqUBm%2BKlb5FwhsYROblCUj9F6ARsKvZqPvys%3D&reserved=0)

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