

Chest Expansion Normal Data

Chest expansion—This should be measured by a uniform method. Using a tape measure the change in circumference of the patient's chest at the level of the 4th intercostal space is recorded.

Patients should be asked to inspire and exhale maximally using standard breathing instructions. This is done a minimum of twice and the greater excursion recorded.

Patient instructions **“Please take a deep breath in as far as you can and then breathe out as far as you can and continue to breathe out until I tell you to stop”**

Limitation of chest expansion is where the patient's measure recorded in centimetres is less than the average normal value by a minimum of 2.5cm correcting for age and gender.

Normal Average Values for circumferential Chest Expansion

Age	18-24		25-34		35-44		45-54		55-64		65-74		75+	
Sex	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Mean (cm)	7.0	5.5	7.5	5.5	6.5	4.5	6.0	5.0	5.5	4.0	4.0	4.0	3.0	2.5