

# PHYSICAL FITNESS

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Functional physical fitness can be judged by the ability to tolerate metabolic equivalent tasks (METs) ( Table 21.5 ). One MET is equivalent to the oxygen consumption of an adult at rest ( $\sim 3.5$  mL/kg/min). Different tasks are assigned a number of METs. If the patient is able to perform  $>4$  METs (e.g. climbing at least one flight of stairs) they are accepted to proceed for low-risk surgery in the USA and Europe. However this depends on a subjective assessment of the ability of a patient and may be overestimated by them. The Duke Activity Status Index (DASI) is a less subjective patient questionnaire. An estimate of the patient's peak oxygen consumption ( $VO_{2\text{ peak}}$ ) can be calculated from their point score. Although it correlates with cardiopulmonary exercise testing (CPET), some patients who score poorly on DASI go on to score well on CPET . An objective measure of fitness is required for high-risk surgery .

Figure 21.7 Extension view of the cervical spine in a patient with rheumatoid arthritis. Arrow indicates the atlantodens interval. Figure 21.8 Flexion view in the same patient as in Figure 21.7 the large increase in the atlantodens interval (arrow), implying significant instability at this level.

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