CHANGES IN OTHER SYSTEMS

Gastrointestinal system
Loss of teeth, dental caries, gingival recession with problems adapting to dentures and altered bite – any of these can affect appetite.
There are atrophic changes in jaw, mucosae, intestinal glands and muscularis with asymptomatic alterations in secretion, motility and absorption, plus reduced surface area in the small bowel.
No significant age changes described in the liver, yet there are impairments suspected in the older people.
These issues can lead to anorexia and malnutrition, defective absorption of iron and vitamins, and to pernicious anaemia or iron deficient anaemia through chronic blood loss.
There is often an issue with oesophageal reflux, ulcerations and conditions such as diverticulosis. Older people will often complain of constipation, but this is more often due to a combination of dehydration, immobility and poor dietary roughage intake as compared to serious pathology.
Gastrointestinal problems may lead to an altered nutritional status, so you will need to be aware of how much energy your treatment is using.

Homeostasis
Particularly vulnerable in old age to plasma or blood loss, dehydration, potassium depletion and metabolic acidosis.
At rest, a person can maintain a constant internal environment, but capacity to react to stress, even the demands of daily living, is markedly lessened owing to two key characteristics of ageing:
1. Poverty of reserve which impairs the ability to restore systemic equilibrium quickly when it is upset
2. Breakdown in co-ordination because different organs age at different rates, so functions dependent on the performance of several systems are therefore impaired.

Temperature intolerance is also an issue if you are asking a person to undress in a gym, which they may consider to be too cold, or if you wish to use heat or ice as treatment modalities. If a patient 'overheats' and is unaware of the rising temperature, you may have a fainter on your hands.

Endocrine system
Failure is not a consequence of normal ageing, but as in other systems, poverty of reserves may precipitate evidence of deficiency.
Secretory capacity of pancreatic beta cells diminishes and abnormality of glucose tolerance increases with age. The efficiency of insulin in dealing with excess glucose declines.
Functional thyroid activity declines with age. Basal metabolic rate and radioactive iodine uptake fall.
Pituitary activity appears to be retained at normal levels with age, but adrenal activity is impaired.
Clinical disorders will include diabetes, myxoedema and thyrotoxicosis.

Central autonomic dysfunction
May contribute to postural hypotension, impaired temperature control and the risk of hypothermia, loss of appreciation of visceral pain, and defective alimentary motility.

Immune system
The immune system has the enormous task of recognising self from non-self. Not all components of the immune system may be equally affected by ageing, but dysfunction known to accompany ageing, increases susceptibility to a number of disabling diseases having different aetiologies.
Increasing incidence of tumourigenesis occurs with age.
Levels of circulating antibodies begin to decline, therefore infectious diseases occur more frequently and with greater consequences in older people, e.g. pneumonia, influenza, urinary tract infections.