

Specific Question: In elderly patients with ankle fractures who are unable to safely mobilise non-weight bearing using appropriate walking aids ; does allowing partial weight bearing of the affected leg reduce length of time spent in hospital, reduce complications of bed-rest, prevent referral to temporary community care and reduce mortality compared to non-ambulatory care.

Clinical bottom line

The search revealed no evidence to answer this question. Further research is required.

Why is this important?

Ankle fractures are the fifth most common fracture and have an incidence of 122/100,000 per year. A quarter of ankle fractures occur in patients over 60 years of age. For elderly patients with traumatic ankle fractures, current practice in many orthopaedic wards in the UK is to mobilise non-weight bearing (i.e hopping on the unaffected leg with the use of walking aids) for 6 weeks. For those patients who are unable to mobilise in this way, non-ambulatory care is required.

Non-ambulatory care results in increased time spent in bed, this is a problem because bed-rest is associated with complications such as increased frailty and mortality. In the six week period before functional rehabilitation can begin patients either remain in an acute hospital bed or will often be moved to temporary care in non-acute settings in the community. In either setting, patients require hoist transfers with the assistance of two members of staff or carers for many activities of daily living. Patients report a large negative impact on the quality of life and mood associated with this non ambulatory care.

It has been suggested that early weight bearing (within 48 hours) following ankle fracture in patients who are unable to mobilise safely using the unaffected leg is a reasonable strategy to prevent complications and risks arising from prolonged non ambulatory care with a number of potential benefits to patients and health care utilisation (Bugler, 2015).

Search timeframe 2006-2016

Inclusion Criteria

	Description	Search terms
Population and Setting	Elderly in-patients (50+) with unilateral ankle fractures +/- Open Reduction Internal Fixation, unable to hop on the unaffected leg.	Age >50 Patients with traumatic ankle fractures unable to safely hop on the unaffected leg to independently mobilise.

Getting Evidence into Clinical Practice:
Musculoskeletal Research Facilitation Group (CAT Group)
Date: December 2017

Intervention or Exposure	Early mobilisation, partial weight bearing through fractured ankle treated operatively or conservatively with plaster casts, Moon boots or orthoses	Early mobilisation of operative or conservatively managed patients. Partial weight bearing with or without Moon boot, plastercasts or orthoses
Comparison if any	Non ambulatory care/ Non Weight Bearing/ Immobilisation/ Bed rest/ Stepdown admission/ Intermediate Care/ Temporary community care/ Nursing Home/ Residential Home/ Twenty four hour care/ Placement/ Respite	Immobilisation Intermediate care Non ambulatory care/ Non Weight Bearing/ Bed rest/ Stepdown admission/ Temporary community care/ Nursing Home/ Residential Home/ Twenty four hour care/ Placement/ Respite
Outcomes of interest	EuroQol 5D (EQ5D), Quality of life, fracture healing quality, Mal-union, delayed union, time to union, length of stay, Non-union, requiring further surgery/revision surgery Mortality, Quality adjusted life years (QALY), Health care utilisation. Pneumonia, Chest Infections, Pulmonary Embolism, Deep Vein Thrombosis, Pressure Sores, Muscle wastage, Contractures	EuroQol 5D (EQ5D), Quality of life, Fracture healing quality, Mal-union, delayed union, Time to union, Length of stay, Non-union, requiring further surgery/ Revision Surgery, Mortality Quality adjusted life years (QALY). Health care utilisation. Pneumonia Chest Infections Pulmonary Embolism Deep Vein Thrombosis Pressure Sores Muscle wastage Contractures
Types of studies	Randomised control trials and systematic reviews	

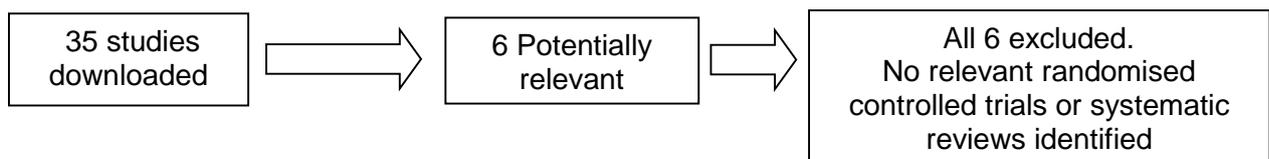
Exclusion Criteria

- Under 50 years of age
- Patients who are able to hop on the unaffected leg to independently mobilise and manage safely at home
- Peripheral nerve injuries
- Syndesmotic injuries
- Unstable fixation
- Associated injuries requiring a period of non-weight bearing e.g. calcaneal fractures

Date of search December 2016

Databases searched Cochrane Systematic Reviews, NHS Clinical Evidence, DARE/HTA/NHSEED, Medline, CINAHL, Embase, AMED, PsychInfo, HMIC, Health Business Elite, PubMed

Results



Summary

This CAT did not find any published randomised controlled trials or Systematic Reviews to answer this question.

Implications for practice/research

Further research is required to determine whether allowing partial weight bearing of the affected leg with an appropriate walking aid in elderly patients with ankle fractures, who are unable to safely mobilise whilst non-weight bearing reduces the length of time spent in hospital, reduces complications of bed-rest, prevents referral to temporary community care and reduces mortality, compared to non-ambulatory care.

What would you Tweet?

Does allowing elderly patients to partially weight bear through fractured ankles influence recovery? No evidence was found and more research is needed.

References

K.E. Bugler, T.O. White. (2015). Early routine weight bearing is safe in patients with ankle fractures, Bone Joint Journal, Orthopaedic Proceedings. May 2015, 97-B(SUPP 4) 14.