ORTHOPAEDIC TRACTION 
 Outline 
 Definition 
 History 
 General Considerations 
 Purpose of traction 
 Disadvantages 
 Types 
 Principles ...Definition 
Traction is the 
application of a 
pulling force to 
a part of the 
body 
 History 
 The use of traction dates as far 
back as 3000 years ( ancient 
Egyptians ). 
 Hippocrates (350BC) wrote about...General Considerations 
Safe and dependable way of treating 
fractures for more than 100 years 
Bone reduced and held by...Purpose of traction 
To regain normal length and alignment of 
involved bone. 
To reduce and immobilize a fracture bone ...Disadvantages 
Costly in terms of hospital stay 
Hazards of prolonged bed rest 
DVT/Thromboembolism 
Pneumonia 
Require...Types(based on method) 
Manual traction 
Skin traction 
The traction force applied over a large area of skin. 
Adhesive ...Types(based on mechanism) 
Fixed traction 
by applying force against a fixed point of body. 
Ex: fixed traction by Thomas...Principles Of Effective Traction 
Counter traction must be used to achieve 
effective traction. 
Counter traction is the...Management of Patients in 
Traction Care of the patient 
Care of the traction suspension system 
Radiographic examinati...SKIN TRACTION 
The traction force is applied over a large 
area, this spreads the load and is more 
comfortable and effic...Weight 
Skin damage can 
result from too much 
of traction force. 
Maximum weight 
recommended for skin 
traction is 6.7...Application 
Adhesive skin traction : 
Prepare the skin by shaving as well as 
washing & applying tincture benzoin 
whic...Non adhesive skin traction 
 Useful in thin and atrophic skin. 
Frequent reapplication may be 
necessary. 
Attached tr...Indications 
Temporary management of neck of femur 
fracture. 
Femoral shaft fracture in children. 
Un displaced fractu...Contraindications 
Abrasions and lacerations of skin in the 
area to which traction is to be applied 
Varicose veins, im...Complications 
Allergic reactions from the adhesive material 
Blister formation and pressure sores from slipping 
straps...SKELETAL TRACTION 
It may be used as a 
means of reducing or 
maintaining the 
reduction of a fracture 
It should be res...Steinmann Pin Rigid 
stainless steel pins of 
varying lengths 4 – 6 mm 
in diameter. Bohler stirrup 
is attached to stein...Denham Pin Identical to 
stienmann pin except for 
a short threaded length in 
the center . This threaded 
portion engage...Kirschner wire They are 
easy to insert and 
minimize the chance of 
soft tissue damage and 
infections, It easily cuts 
...Application 
Use GA or LA. 
Paint the skin with iodine and spirit. 
Mount the pin/wire on the hand drill. 
Hold the li...Identify the site of insertion and make a 
stab wound. 
Hold the pin horizontally at right angles to 
the long axis of t...Complications 
Introduction of infection into bone. 
Distraction at fracture site. 
Ligamentous damage. 
Damage to epi...Specific Tractions 
Head Halter traction 
Simple type cervical traction. 
Management of neck pain. 
Weight should not exce...Perkin’s traction 
Treatment of fractures of tibia 
and of the femur from the 
subtrochantric region distally. 
Basis of m...Upper Femoral Traction 
Lateral traction for fractures 
with medial or anterior force. 
Stretched capsule and 
ligamentum ...Ninety-Ninety Traction 
Useful for subtrochantric and 
proximal 3rd femur fracture. 
Especially in young children. 
Matche...Modern Techniques 
Traction procedures are 
largely replaced now by 
more modern techniques, 
but certain approaches 
are...