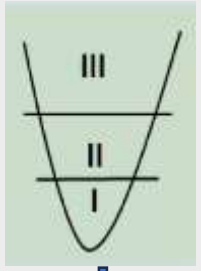
BIOMECHANICAL PREPARATION

STEP-BACK (Clem,Weine,Schilder 1969-1974)

CONVENTIONAL/ TELESCOPIC



CORONAL- reaming motion
APICAL- circumferential filing

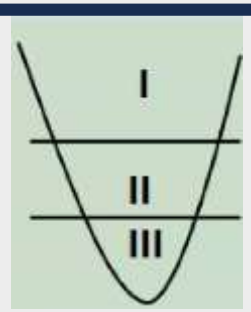
PASSIVE (Torabinejad)

Insertion of progressively larger instrument as deep as they can be placed

GG Drill for additional coronal enlargement

Apical instrumentation using step-back

CROWN-DOWN (Goerig 1982)



Reaming motion

PRESSURELESS (Marshall, Pappin 1980)

35K-File to point of binding

GG drill (2 and 3)

Coronal to apical with k files

DOUBLE FLARE (Fava 1983)

Coronal to apical shaping with K files upto working length

Step back with K-files of ascending sizes

BALANCED FORCE (Roane 1985)

Coronal enlargement with GG drills 2 and 3

Pressureless insertion of Flex-R

Clockwise 90
Anti-clockwise 180-270

HYBRID

Patency

CROWN-DOWN

Passive pressure less placement
15, 20, and 25K-files to the point of canal binding

Coronal pre-enlargement in the sequence of GG No. 3, followed by No. 2, and then No. 1
(not beyond 3-4 mm into the root canal orifice)

Establishing the working length with a size 15 K-file

Placement of size 40 or smaller K-file to the point of canal binding
(to a length 1 mm beyond the depth of insertion of GG drill No. 1)

STEP-BACK

Enlarging the working length from size 15 K-file to recommended master apical file sizes

Canal preparation is done with sequential use of progressively larger instruments placed successively short of the working length

This step-back procedure is performed until the middle third to obtain a continuous tapering canal preparation shape