Multiband (multibond) appliances

Bioprogressive

Straight-wire
Outline

• Bioprogressive archwires
  loops
  cases

• **Straight-wire**
  Triple-Cotrol
  ideal arches
  treatment phases
Bioprogressive

- Ricketts 1965
- Utility archwires
- Loopos
- Sectional archwires
Elgiloy

- **Material:**
  - Cobalt (40%)
  - Chromium (20%)
  - nickel (0.15%), molybdenum (7%), manganese (2%), beryllium (0.04%)
  - carbon (15%), iron (15.81%)
- **Heat-treating**
Utility arches

- Sagittal effect
- Vertical effect
Sectional arches

- Distal offset
- Anchorage
Space closer archwires

- Upper arch retractor wire
- Lower arch retractor wire
- Delta loops (closing of the smaller spaces)
„T” loops

• Rotation of the premolars
• Nivellation of the Spee curve
Case I

- Angle III
- Narrow upper arch
- Front cross bite
Correction of the upper right canine and first premolar positions
Case II

- Angle I
- U-L narrow arches
- U-L front crowding
Reposition of the front teeth
Straight-wire

• Triple-Control
• Andrews six keys
• Treatment phases
Triple control bracket

- Angulatio
- Torque
- In-Out (Distal offset)
Different form of archwires

- Normal form
- Tapered form
- Ovoid form
- Narrow tapered form
- Narrow ovoid form
Nivellation phase

Angle I u-l narrow arches and front crowding
Intermediate phase

- Tooth-arch form correction
- Canine distalisation
Contraktion phase

distalisation of the front teeth
Final phase

Finishing the rest of the treatment problems, fine corrections
The beginning of the retention phase
FIGURE 12: lip made of 0.021 x 0.025 in SS archwire and intermediate NiTi spring II elastic.