

<b>Author Year</b> <b>Country</b> <b>Research Design</b> <b>Score</b> <b>Total Sample Size</b>	<b>Methods</b>	<b>Outcome</b>
<a href="#">Rimoldi et al. (1992)</a> USA Case Series N=147	<p><b>Population:</b> Mean age: 30 yr; Gender: males=115, females=32; Level of injury range: T9-L5; Level of severity: complete=56, incomplete=91; Mean time since injury: 23 days.</p> <p><b>Intervention:</b> Participants who received surgical stabilization and/or decompression were retrospectively analyzed.</p> <p><b>Outcome Measures:</b> American Spinal Injury Association (ASIA) Impairment Scale (AIS); Operation time; Rehabilitation time; Complications.</p>	<ol style="list-style-type: none"> <li>1. 120 stabilizations were performed: 112 posterior and eight anterior.</li> <li>2. 68 decompressions were performed: 34 posterior and 34 anterior.</li> <li>3. AIS motor score improved an average of eight points in participants with incomplete injury but did not improve in those with complete.</li> <li>4. AIS motor score improvement was positively correlated with earlier surgery and with performing stabilization before/instead of decompression.</li> <li>5. Operation time was shorter for sublaminar wires than Harrington rods and Drummond wires (292 min versus 297 min versus 351 min) and for posterior than anterior procedures (292-351 min versus 380 min).</li> <li>6. Rehabilitation time was shorter in participants stabilized with sublaminar wires than with Drummond wires or Harrington rods (73 versus 92 versus 119 days) and was longer in those requiring postoperative immobilization.</li> <li>7. Surgical complications (n=37) included kyphosis, pseudarthrosis, infection, pain, and hardware failure; these were correlated with later time-to-surgery.</li> <li>8. Non-surgical complications (n=19) included deep vein thrombosis, pulmonary embolism, and pressure sores; there was no correlation with time-to-surgery.</li> <li>9. Blood loss was greater in anterior than posterior procedures.</li> </ol>
<a href="#">Bucci et al. (1988)</a> USA Case Series N <sub>Initial</sub> =49, N <sub>Final</sub> =48	<p><b>Population:</b> Mean age: 30.3 yr; Gender: males=42, females=7; Injury etiology: motor vehicle accident=28, fall=7, sports=14; Level of injury: cervical.</p> <p><b>Intervention:</b> Individuals who underwent immobilization (n=20) or immobilization and fusion (n=28) following SCI. Outcomes were assessed at 3 mo.</p> <p><b>Outcome Measures:</b> Spinal Instability, Treatment Failure, Malalignment, Neurological Improvement, Neurological Deterioration.</p>	<ol style="list-style-type: none"> <li>1. There were significantly more individuals in the immobilization group with spinal instability (p&lt;0.01).</li> <li>2. There was no significant difference between groups in treatment failure, malalignment, neurological improvement or deterioration.</li> </ol>
<a href="#">Capen et al., (1985)</a> USA Case Series	<p><b>Population:</b> Mean age: 26.7 yr; Gender: males=179, females=43;</p>	<ol style="list-style-type: none"> <li>1. No perioperative mortality occurred in any of the groups.</li> </ol>

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<p><math>N_{\text{Initial}}=212</math>, <math>N_{\text{Final}}=166</math></p>	<p>Level of severity: complete=96, incomplete=99, normal=17.</p> <p><b>Intervention:</b> Participants who received surgical stabilization of the cervical spine were retrospectively analyzed. Stabilization involved posterior fusion (n=114), anterior fusion (n=88), or combined fusion (n=10).</p> <p><b>Outcome Measures:</b> Mortality, Complications, Neurological impairment, Stabilization maintenance.</p>	<ol style="list-style-type: none"> <li>2. Complications were reported in the anterior group (n=18), posterior group (n=22), and combined group (n=3).</li> <li>3. Neurological impairment occurred in the anterior group (n=4) and posterior group (n=1), but not combined group.</li> <li>4. In the anterior group at 4 yr follow-up (n=59), six participants required graft replacement, 36 demonstrated loss of reduced alignment, and 36 demonstrated degenerative changes around the fusion mass.</li> <li>5. In the posterior group at 4 yr follow-up (n=98), four participants required rewiring, none demonstrated loss of reduced alignment, and two demonstrated degenerative changes around the fusion mass; 73 demonstrated significant extension of fusion mass beyond intended levels.</li> <li>6. In the combined group at 2 yr follow-up (n=9), no participants demonstrated issues with graft/wire, loss of reduced alignment, or degenerative changes around the fusion mass; two demonstrated extension of fusion mass beyond intended area.</li> </ol>