POLICY

- The use of the brace type TLSO LO631/TLISO LO637 may be used only following a surgical fusion or for a diagnosed spondylolisthesis of type ¾ for stabilization.
- The use of a lumbar brace post-surgical fusion may be of benefit for stabilization using the molded type of fixed brace TLSO LO631/LO637 but has no evidence based value in the standard subacute or chronic back pain.
- The use of a simple back support or brace may have a beneficial effect on subacute and chronic pain in conjunction with other modalities including exercise therapy, physical therapy.
- A simple back support may be of value as an adjunct to treatment for lumbar strains/sprains.

SUPPORTING DOCUMENTATION

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Lumbar supports
Not recommended for prevention. Recommended as an option for treatment. See below for indications.
See also Back brace, post operative (fusion); IntelliSkin posture garments; and SpineCor brace.
Prevention: Not recommended for prevention. There is strong and consistent evidence that lumbar supports were not effective in preventing neck and back pain. (Jellema-Cochrane, 2001) (van Poppel, 1997) (Linton, 2001) (Assendelft-Cochrane, 2004) (van Poppel, 2004) (Resnick, 2005) Lumbar supports do not prevent LBP. (Kinkade, 2007) A systematic review on preventing episodes of back problems found strong, consistent evidence that exercise interventions are effective, and other interventions not effective, including stress management, shoe inserts, back supports, ergonomic/back education, and reduced lifting programs. (Bigos, 2009) This systematic review concluded that there is moderate evidence that lumbar supports are no more effective than doing nothing in preventing low-back pain. (van Duijvenbode, 2008) A total of 23 studies involving 30,850 participants evaluated six different prevention strategies: exercise, education, exercise combined with education, back belts, shoe insoles, and other strategies. Exercise combined with education reduces the risk for a LBP episode at short-term (12 months) follow-up (RR: 0.55). Exercise alone reduces the use of sick leave in the long term (RR: 0.22). Other interventions, including education alone (RR: 1.03), back belts (RR: 1.01), and shoe insoles (RR: 1.01), did not appear to be associated with the prevention of LBP. (Steffens, 2016)
Treatment: Recommended as an option for compression fractures and specific treatment of spondylolisthesis, documented instability, and for treatment of nonspecific LBP (very low-quality evidence, but may be a conservative option). Under study for post-operative use; see Back brace, post operative (fusion). Among home care workers with previous low back pain, adding patient-directed use of lumbar supports to a short course on healthy working methods may reduce the number of days when low back pain occurs, but not overall work absenteeism. (Roelofs, 2007) Acute osteoporotic vertebral compression fracture management includes bracing, analgesics, and functional
restoration. (Kim, 2006) An RCT to evaluate the effects of an elastic lumbar belt on functional capacity and pain intensity in low back pain treatment, found an improvement in physical restoration compared to control and decreased pharmacologic consumption. (Calmels, 2009) This RCT concluded that lumbar supports to treat workers with recurrent low back pain seems to be cost-effective, with on average 54 fewer days per year with LBP and 5 fewer days per year sick leave. (Roelofs, 2010) This systematic review concluded that lumbar supports may or may not be more effective than other interventions for the treatment of low-back pain. (van Duijvenbode, 2008) For treatment of nonspecific LBP, compared with no lumbar support, an elastic lumbar belt may be more effective than no belt at improving pain (measured by visual analogue scale) and at improving functional capacity (measured by EIFEL score) at 30 and 90 days in people with subacute low back pain lasting 1 to 3 months. However, evidence was weak (very low-quality evidence). (McIntosh, 2011) Bracing is a low-risk, cost-effective method to treat certain thoracolumbar fractures, and it offers equivalent efficacy as surgical management in many cases. The evidence for bracing of osteoporotic-type fractures is less clear, and further investigation will be necessary to delineate its optimal role. (Chang, 2014)

**REFERENCE (S)**

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