

## Cervical Total Disc Arthroplasty (TDR) Understanding Your Risks

This handout explains the risks of cervical total disc replacement (cTDR), a procedure to treat neck pain or nerve symptoms by replacing a damaged disc in the neck with an artificial disc. The information below is based on large studies and national databases, and is intended to help you make an informed decision about your surgery.

### Common Risks and Their Frequency:

- **Any complication:** About 1–9% of patients experience a complication within the first 30 days after surgery. Most are minor and temporary.[\[1\]\[2\]\[4\]\[7\]\[12\]](#)
- **Neck pain or arm pain:** Up to 15% may have persistent or recurrent pain after surgery.[\[3\]\[11\]](#)
- **Dysphagia (trouble swallowing):** Occurs in about 4–5% of patients, usually mild and temporary.[\[1\]\[5\]](#)
- **Hoarseness or voice changes:** Less than 2% of patients, usually temporary.[\[5\]](#)
- **Heterotopic ossification (bone formation around the disc):** Seen in up to 16% of patients at 5 years, which may reduce motion at the replaced disc.[\[1\]\[12\]](#)
- **Device migration or movement:** About 1–4% of patients may have the device move from its original position, which can require further surgery.[\[3\]\[9\]\[11\]](#)
- **Device or insertion problems:** About 2–3% may have issues with device placement or function.[\[3\]\[11\]](#)
- **Radiculopathy (new or worsened nerve symptoms):** About 2–8% may experience new or worsened arm pain, numbness, or tingling.[\[1\]\[3\]\[5\]\[11\]](#)
- **Wound infection:** Less than 1% of patients.[\[2\]\[4\]\[5\]](#)
- **Bleeding or hematoma:** Less than 1% of patients.[\[2\]\[4\]\[5\]](#)
- **Dural tear (spinal fluid leak):** Occurs in about 0.5–1% of cervical spine surgeries, including cTDR. Most are recognized and repaired during surgery, but can increase the risk of nerve injury, infection, or headache.[\[10\]](#)

### Serious or Rare Risks:

- **Neurological injury (nerve or spinal cord injury):** Less than 1% of patients, but can be serious and may cause weakness, numbness, or paralysis.[1][5][10]
- **Dural tear with nerve injury or infection:** Rare, but can lead to more severe complications such as meningitis or persistent nerve symptoms.[10]
- **Device failure, breakage, or wear:** Rare, but may require revision surgery.[3][9][11]
- **Revision or removal surgery:** About 1–2% of patients require device removal or revision within 5–10 years, most often for device movement, pain, or bone changes.[9][11][12]
- **Adjacent segment degeneration (wear at other levels):** Seen in up to 36% of patients at long-term follow-up, but the need for additional surgery at other levels is low (about 3%).[1][12]
- **Vascular injury, stroke, or heart attack:** Very rare, less than 1%. [2][5]
- **Death:** Extremely rare, with no deaths reported in large cTDR series.[2][4][5]

#### **Other Considerations:**

- **Most patients are satisfied with their outcome at 5 years, and cTDR is considered as safe as anterior cervical fusion for most patients.**[5][8][12]
- **Risks may be higher in revision surgery, multi-level surgery, or in patients with other medical conditions.**[6][10]

#### **Patient Acknowledgment:**

By signing below, you acknowledge that you understand the above risks, their estimated frequency, and the potential for both common and rare complications associated with cervical total disc replacement, including the risk of dural tear. All your questions have been answered to your satisfaction.

Signature: \_\_\_\_\_ **Date:** \_\_\_\_\_

Patient Name: \_\_\_\_\_ **DOB:** \_\_\_\_\_

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