Microendoscopic discectomy

Background

Microendoscopic discectomy is a minimally invasive spinal procedure that involves using an endoscopically guided probe to locate extruded disc material. Small surgical instruments are inserted through the probe to remove extruded disc material and relieve pressure on the root nerve, which can alleviate the patient’s pain.

Most patients who have a herniated disc and are candidates for open discectomy are candidates for a microendoscopic discectomy, which can be performed on an outpatient or inpatient basis. The procedure works very well for patients with radiculopathies either from a disc herniation or spondylotic stenosis. According to Tim Adamson, MD, one of the developers of the technique, “The complications seem to be the same as open procedures with risk to the nerves or spinal cord. The risk of infection and wound problems is much lower with MED due to the smaller exposure.”

Involved specialties

Neurosurgeons and orthopedic spine surgeons

Positions of specialty boards

**ABNS**

The American Board of Neurological Surgery (ABNS) offers certification in neurological surgery. Candidates for certification must:

- Complete an accredited 72-month neurological surgery residency, which includes training in spinal surgery and neuroradiology
- Hold a valid, unrestricted license to practice medicine in any state
- Pass the ABNS examination in neurological surgery

**ABSS**

The American Board of Spine Surgery (ABSS) offers certification in spine surgery. Candidates for certification must:

- Be board certified in either neurosurgery or orthopedic surgery. Candidates who have passed the written examinations offered by either the ABNS or the American Board of Orthopaedic Surgery (ABOS) may apply for the ABSS examination, but certification in spine surgery will not be awarded until the
candidate achieves board certification in either neurosurgery or orthopedic surgery.

➤ Have completed a one-year fellowship program in spine surgery.
➤ Hold a valid, unrestricted license to practice medicine.
➤ Pass written and oral examinations.

**ABOS**

The ABOS offers certification in orthopedic surgery. Candidates for certification must:

➤ Have graduated from an AOA-accredited medical school
➤ Have completed an Accreditation Council for Graduate Medical Education (ACGME)–accredited 60-month residency in orthopedic surgery
➤ Hold a valid, unrestricted license to practice medicine
➤ Pass written and oral examinations

**AOBOS**

The American Osteopathic Board of Orthopedic Surgery (AOBOS) offers certification to osteopathic physicians who meet the following criteria:

➤ Have graduated from an American Osteopathic Association–accredited medical school
➤ Hold a valid, unrestricted license to practice medicine
➤ Conform to the AOA Code of Ethics
➤ If training was begun prior to July 1, 2008, have completed one year of postgraduate internship plus four years of orthopedic surgery residency
➤ If training was begun after July 1, 2008, have completed five years of orthopedic surgery residency
➤ Have documentation of at least 200 major orthopedic surgeries over the preceding 12 months
➤ Have achieved a passing score on all three sections of the certification exam

**AOBS**

The American Osteopathic Board of Surgery (AOBS) offers board certification to osteopathic neurosurgeons. To be eligible for certification, candidates must meet the following criteria:

➤ Have graduated from an American Osteopathic Association (AOA)–accredited medical school
➤ Hold an unrestricted license to practice medicine
➤ Conform to the AOA Code of Ethics
➤ If training was begun prior to July 1, 2008, have completed one year of postgraduate internship plus five years of neurosurgery residency
➤ If training was begun after July 1, 2008, have completed six years of neurosurgery training
➤ Have achieved a passing score on the certification exam
Positions of societies, academies, colleges, and associations

**AAOS**
The American Academy of Orthopedic Surgeons (AAOS) has no official position on training, competency requirements, or delineation of privileges for microendoscopic discectomy.

**AANS**
The American Association of Neurological Surgeons (AANS) has no official position on training, competency requirements, or delineation for privileges for microendoscopic discectomy.

**ACGME**
The ACGME has established standards for postgraduate training in neurological surgery, orthopedic surgery, and spine surgery. None of the program requirements for these specialties specify training requirements for microendoscopic discectomy.

However, the *ACGME Program Requirements for Graduate Medical Education in Orthopaedic Surgery* state that residents’ experiences must include spine surgery, including disc surgery. Additionally, the requirements state that throughout their training, residents must log between 1000 and 3000 procedures, which includes spine surgeries.

**AOA**
The AOA has established standards for postgraduate training of graduates who have obtained their DO degree. The AOA has no official position on training, competency requirements, or delineation of privileges in microendoscopic discectomy.

Positions of subject matter experts

**Chris Yeung, MD**
Phoenix

**Chris Yeung, MD,** is a board-certified orthopedic surgeon and spine surgeon associated with the Desert Institute for Spinal Care in Phoenix. Dr. Yeung explains that microendoscopic discectomy, with or without the endoscope, is becoming a very common procedure, and all physicians taking a spinal surgery fellowship will have opportunities to perform the procedure. “Minimally invasive surgery is the natural progression of spinal training,” he says. “The outcomes are just as good as with the open procedure, the benefits are just so obvious, the procedure is less traumatic, and patients recover much faster.”
Although the procedure is still commonly called microendoscopic discectomy, according to Yeung, many physicians no longer use the endoscope. “It’s the same procedure, and it’s really a matter of personal preference. Some people like the endoscope, but many physicians, myself included, prefer to just use the microscope to look through the tube.”

According to Yeung, it is important that the surgeon, and the patient, always be prepared for a conversion to an open procedure. “Some patients’ anatomy do not permit the minimally invasive procedure, and it’s really critical for the surgeon to be willing to say, ‘Whoops, okay, this won’t work,’ and switch to an open discectomy. A really aggressive surgeon may have a hard time doing that, and if I were credentialing for this procedure, I would want to make sure that this was a surgeon who is okay changing plans if he or she encounters something unexpected instead of trying to force the minimally invasive approach when it turns out to be the wrong choice for the patient,” he says.

In addition, Yeung says the surgeon sometimes may encounter a dural tear and must have the skills to repair it.

**Tim Adamson, MD**  
**Charlotte, N.C.**

Tim Adamson, MD, is a board-certified neurosurgeon with Carolina Neurosurgery and Spine Associates in Charlotte, N.C., and one of the developers of microendoscopic discectomy. He reports that the procedure is taught in most neurosurgery and spinal surgery residency programs, although he is not certain whether it has been officially incorporated into the ACGME curriculum for these specialties. “The skill sets for MED are very similar to standard spine surgery, just in a much more limiting space,” he says. “Understanding the anatomy is crucial.”

Adamson, who provided training in the procedure for one of the early manufacturers of the probe, agrees that use of the endoscope is not strictly required. “When I was teaching some of the courses, it was apparent that some surgeons are never comfortable working off of a TV monitor. For them it was easier to work through the tube and use a microscope, which is essentially the same technique, just physically harder on the surgeon because of some postural changes that have to be made,” he says.

Adamson explains that the learning curve for microendoscopic discectomy is “fairly significant. [The surgeons] need to have experience with the open procedure to understand the anatomy and be very comfortable using MED in the lumbar spine before working on the cervical spine.” At his hospital, if a surgeon applying for privileges had residency training in the procedure, that is sufficient. Otherwise, the surgeon is required to be proctored by an experienced surgeon for the first 20 cases. Once the surgeon has achieved competence, Adamson estimates that performing four to five microendoscopic discectomies per year should be sufficient to maintain competence.
Positions of accreditation bodies

CMS

CMS has no formal position concerning the delineation of privileges for micro-endoscopic discectomy. However, the CMS Conditions of Participation (CoP) define a requirement for a criteria-based privileging process in §482.22(c)(6) stating, “The bylaws must include criteria for determining the privileges to be granted to individual practitioners and a procedure for applying the criteria to individuals requesting privileges.”

§482.12(a)(6) states, “The governing body must assure that the medical staff bylaws describe the privileging process. The process articulated in the bylaws, rules or regulations must include criteria for determining the privileges that may be granted to individual practitioners and a procedure for applying the criteria to individual practitioners that considers:

- Individual character
- Individual competence
- Individual training
- Individual experience
- Individual judgment

The governing body must ensure that the hospital’s bylaws governing medical staff membership or the granting of privileges apply equally to all practitioners in each professional category of practitioners.”

Specific privileges must reflect activities that the majority of practitioners in that category can perform competently and that the hospital can support. Privileges are not granted for tasks, procedures, or activities that are not conducted within the hospital, regardless of the practitioner’s ability to perform them.

Each practitioner must be individually evaluated for requested privileges. It cannot be assumed that every practitioner can perform every task, activity, or privilege specific to a specialty, nor can it be assumed that the practitioner should be automatically granted the full range of privileges. The individual practitioner’s ability to perform each task, activity, or privilege must be individually assessed.

CMS also requires that the organization have a process to ensure that practitioners granted privileges are working within the scope of those privileges.

CMS’ CoPs include the need for a periodic appraisal of practitioners appointed to the medical staff/granted medical staff privileges (§482.22[a][1]). In the absence of a state law that establishes a time frame for the periodic appraisal, CMS recommends that an appraisal be conducted at least every 24 months. The purpose of the periodic appraisal is to determine whether clinical privileges or membership should be continued, discontinued, revised, or otherwise changed.
The Joint Commission

The Joint Commission has no formal position concerning the delineation of privileges for microendoscopic discectomy. However, in its *Comprehensive Accreditation Manual for Hospitals*, The Joint Commission states, “The hospital collects information regarding each practitioner’s current license status, training, experience, competence, and ability to perform the requested privilege” (MS.06.01.03).

In the introduction for MS.06.01.03, The Joint Commission states that there must be a reliable and consistent system in place to process applications and verify credentials. The organized medical staff must then review and evaluate the data collected. The resultant privilege recommendations to the governing body are based on the assessment of the data.

The Joint Commission introduces MS.06.01.05 by stating, “The organized medical staff is responsible for planning and implementing a privileging process.” It goes on to state that this process typically includes:

➤ Developing and approving a procedures list
➤ Processing the application
➤ Evaluating applicant-specific information
➤ Submitting recommendations to the governing body for applicant-specific delineated privileges
➤ Notifying the applicant, relevant personnel, and, as required by law, external entities of the privileging decision
➤ Monitoring the use of privileges and quality-of-care issues

MS.06.01.05 further states, “The decision to grant or deny a privilege(s) and/or to renew an existing privilege(s) is an objective, evidence-based process.”

The EPs for standard MS.06.01.05 include several requirements as follows:

➤ The need for all licensed independent practitioners who provide care, treatment, and services to have a current license, certification, or registration, as required by law and regulation
➤ Established criteria as recommended by the organized medical staff and approved by the governing body with specific evaluation of current licensure and/or certification, specific relevant training, evidence of physical ability, professional practice review data from the applicant’s current organization, peer and/or faculty recommendation, and a review of the practitioner’s performance within the hospital (for renewal of privileges)
➤ Consistent application of criteria
➤ A clearly defined (documented) procedure for processing clinical privilege requests that is approved by the organized medical staff
➤ Documentation and confirmation of the applicant’s statement that no health problems exist that would affect his or her ability to perform privileges requested
➤ A query of the NPDB for initial privileges, renewal of privileges, and when a new privilege is requested
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- Written peer recommendations that address the practitioner’s current medical/clinical knowledge, technical and clinical skills, clinical judgment, interpersonal skills, communication skills, and professionalism
- A list of specific challenges or concerns that the organized medical staff must evaluate prior to recommending privileges (MS.06.01.05, EP 9)
- A process to determine whether there is sufficient clinical performance information to make a decision related to privileges
- A decision (action) on the completed application for privileges that occurs within the time period specified in the organization’s medical staff bylaws
- Information regarding any changes to practitioners’ clinical privileges, updated as they occur

The Joint Commission further states, “The organized medical staff reviews and analyzes information regarding each requesting practitioner’s current licensure status, training, experience, current competence, and ability to perform the requested privilege” (MS.06.01.07).

In the EPs for standard MS.06.01.07, The Joint Commission states that the information review and analysis process is clearly defined and that the decision process must be timely. The organization, based on recommendations by the organized medical staff and approval by the governing body, develops criteria that will be considered in the decision to grant, limit, or deny a request for privileges. The criteria must be consistently applied and directly relate to the quality of care, treatment, and services. Ultimately, the governing body or delegated governing body has the final authority for granting, renewing, or denying clinical privileges. Privileges may not be granted for a period beyond two years.

Criteria that determine a practitioner’s ability to provide patient care, treatment, and services within the scope of the privilege(s) requested are consistently evaluated. The Joint Commission further states, “Ongoing professional practice evaluation information is factored into the decision to maintain existing privilege(s), to revise existing privileges, or to revoke an existing privilege prior to or at the time of renewal” (MS.08.01.03).

In the EPs for MS.08.01.03, The Joint Commission says there is a clearly defined process facilitating the evaluation of each practitioner’s professional practice, in which the type of information collected is determined by individual departments and approved by the organized medical staff. Information resulting from the ongoing professional practice evaluation is used to determine whether to continue, limit, or revoke any existing privilege.

HFAP

The Healthcare Facilities Accreditation Program (HFAP) has no formal position concerning the delineation of privileges for microendoscopic discectomy. The bylaws must include the criteria for determining the privileges to be granted.
to the individual practitioners and the procedure for applying the criteria to individuals requesting privileges (03.01.09). Privileges are granted based on the medical staff’s review of an individual practitioner’s qualifications and its recommendation regarding that individual practitioner to the governing body.

It is also required that the organization have a process to ensure that practitioners granted privileges are working within the scope of those privileges.

Privileges must be granted within the capabilities of the facility. For example, if an organization is not capable of performing open-heart surgery, no physician should be granted that privilege.

In the explanation for standard 03.01.13 related to membership selection criteria, HFAP states, “Basic criteria listed in the bylaws, or the credentials manual, include the items listed in this standard. (Emphasis is placed on training and competence in the requested privileges.)”

The bylaws also define the mechanisms by which the clinical departments, if applicable, or the medical staff as a whole establish criteria for specific privilege delineation.

Periodic appraisals of the suitability for membership and clinical privileges is required to determine whether the individual practitioner’s clinical privileges should be approved, continued, discontinued, revised, or otherwise changed (03.00.04). The appraisals are to be conducted at least every 24 months.

The medical staff is accountable to the governing body for the quality of medical care provided, and quality assessment and performance improvement (03.02.01) information must be used in the process of evaluating and acting on re-privileging and reappointment requests from members and other credentialed staff.

**DNV**

DNV has no formal position concerning the delineation of privileges for microendoscopic discectomy. MS.12 Standard Requirement (SR) #1 states, “The medical staff bylaws shall include criteria for determining the privileges to be granted to individual practitioners and a procedure for applying the criteria to those individuals that request privileges.” The governing body shall ensure that under no circumstances is medical staff membership or professional privileges in the organization dependent solely upon certification, fellowship, or membership in a specialty body or society.

Regarding the Medical Staff Standards related to Clinical Privileges (MS.12), DNV requires specific provisions within the medical staff bylaws for:

- The consideration of automatic suspension of clinical privileges in the following circumstances: revocation/restriction of licensure; revocation, suspension,
or probation of a DEA license; failure to maintain professional liability insurance as specified; and noncompliance with written medical record delinquency/deficiency requirements

- Immediate and automatic suspension of clinical privileges due to the termination or revocation of the practitioner’s Medicare/Medicaid status
- Fair hearing and appeal

The Interpretive Guidelines also state that core privileges for general surgery and surgical subspecialties are acceptable as long as the core is properly defined.

DNV also requires a mechanism (outlined in the bylaws) to ensure that all individuals provide services only within the scope of privileges granted (MS.12, SR.4).

Clinical privileges (and appointments or reappointments) are for a period as defined by state law or, if permitted by state law, not to exceed three years (MS.12, SR.2).

Individual practitioner performance data must be measured, utilized, and evaluated as a part of the decision-making for appointment and reappointment. Although not specifically stated, this would apply to the individual practitioner’s respective delineation of privilege requests.

**CRC draft criteria**

The following draft criteria are intended to serve solely as a starting point for the development of an institution’s policy regarding privileges for microendoscopic discectomy.

**Minimum threshold criteria for requesting privileges in microendoscopic discectomy**

- **Basic education:** MD or DO
- **Minimal formal training:** Successful completion of an ACGME-/AOA-accredited residency program in neurosurgery, or orthopedic surgery with a fellowship in surgery of the spine. If the physician did not receive training in the procedure during residency, he or she should complete 20 cases proctored by an experienced surgeon.
- **Required current experience:** Demonstrated current competence and evidence of the performance of five microendoscopic discectomy procedures in the past 12 months or completion of training in the past 12 months.

**References**

If the applicant is recently trained, a letter of reference should come from the director of the applicant’s training program. Alternatively, a letter of reference may come from the applicable department chair and/or clinical service chief at the facility where the applicant most recently practiced.
**Reappointment**

Reappointment should be based on unbiased, objective results of care according to a hospital’s quality assurance mechanism.

Demonstrated current competence and evidence of the performance of at least 10 microendoscopic discectomies in the past 24 months, based on results of ongoing professional practice evaluation and outcomes, should be required.

In addition, continuing education related to microendoscopic discectomy should be required.

**For more information**

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**Healthcare Facilities Accreditation Program**
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