Prolotherapy describes a procedure intended for healing and strengthening ligaments and tendons by injecting an agent that induces inflammation and stimulates endogenous repair mechanisms. Prolotherapy may also be referred to as proliferant injection, prolo, joint sclerotherapy, regenerative injection therapy, growth factor stimulation injection, or nonsurgical tendon, ligament, and joint reconstruction. It has been investigated as a treatment of various etiologies of musculoskeletal pain, including arthritis, degenerative disc disease, fibromyalgia, tendinitis and plantar fasciitis.

The goal of prolotherapy is to promote tissue repair or growth by prompting release of growth factors, such as cytokines, or increasing the effectiveness of existing circulating growth factors. The mechanism of action is not well understood, but may involve local irritation and/or cell lysis. Agents used with prolotherapy have included zinc sulfate, psyllium seed oil, combinations of dextrose, glycerin, and phenol, or dextrose alone, often combined with a local anesthetic. Polidocanol and sodium morrhuate, vascular sclerosants, have also been used to sclerose areas of high intratendinous blood flow associated with tendinopathies. Prolotherapy typically involves multiple injections per session conducted over a series of treatment sessions.

A similar approach involves the injection of autologous platelet-rich plasma (PRP), which contains a high concentration of platelet-derived growth factors. Treatment of musculoskeletal pain conditions (e.g., tendinopathies) with PRP is discussed in the BCBSNC policy titled “Growth Factors in Wound Healing”.

**Regulatory Status**
Sclerosing agents have been approved by the U.S. Food and Drug Administration for use in treating spider and varicose veins. These sclerosing agents include Asclera® (polidocanol), Varithena® (an injectable polidocanol foam), Sotradecol® (sodium tetradecyl sulfate), Ethamolin® (ethanolamine oleate), and Scleromate® (sodium morrhuate). These agents are not currently approved as joint and ligamentous sclerosing agents.

**Note:** This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.

**Policy**
Prolotherapy is considered investigational. BCBSNC does not cover investigational services or procedures.

**Benefits Application**
Prolotherapy

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Prolotherapy is covered

Not applicable.

When Prolotherapy is not covered

Prolotherapy is considered investigational as a treatment of musculoskeletal pain. BCBSNC does not cover investigational services or procedures.

Policy Guidelines

For individuals who have musculoskeletal pain (chronic neck, back pain), osteoarthritic pain or tendinopathies of the upper or lower limbs who receive prolotherapy, the evidence includes small randomized trials with inconsistent results. Relevant outcomes are symptoms, functional outcomes, and quality of life. The strongest evidence is for the treatment of osteoarthritis, but the clinical significance of the results is uncertain. The evidence is insufficient to determine the effects of the technology on health outcomes.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable codes: M0076

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources


Prolotherapy


Specialty Matched Consultant Advisory Panel review 7/2010


Specialty Matched Consultant Advisory Panel review 7/2011


Specialty Matched Consultant Advisory Panel review 7/2012


Specialty Matched Consultant Advisory Panel review 7/2013

Medical Director review 7/2013


Specialty Matched Consultant Advisory Panel review 7/2014
Prolotherapy

Medical Director review 7/2014


Specialty Matched Consultant Advisory Panel review 6/2015


Policy Implementation/Update Information

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/02</td>
<td>New policy issued.</td>
</tr>
<tr>
<td>6/18/07</td>
<td>Information added to Description for clarity. Rationale for continued investigational status added to Policy Guidelines section. References updated. Specialty Matched Consultant Advisory Panel review meeting 5/18/07. No changes to policy coverage criteria. (adn)</td>
</tr>
<tr>
<td>7/6/09</td>
<td>Description section revised. Policy Guidelines section updated. References updated. Specialty Matched Consultant Advisory Panel review meeting 5/21/09. No change to policy statement. (adn)</td>
</tr>
<tr>
<td>9/30/11</td>
<td>References updated. (mco)</td>
</tr>
<tr>
<td>10/1/13</td>
<td>References updated. (mco)</td>
</tr>
<tr>
<td>10/1/15</td>
<td>Reference added. (sk)</td>
</tr>
</tbody>
</table>
## Prolotherapy

<table>
<thead>
<tr>
<th>Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/26/17</td>
<td>Specialty Matched Consultant Advisory Panel review 4/26/2017. No change to policy statement. (an)</td>
</tr>
<tr>
<td>4/30/19</td>
<td>Minor changes to Description section. Reference added. No change to policy statement. Specialty Matched Consultant Advisory Panel review 4/17/2019. (an)</td>
</tr>
</tbody>
</table>

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.