|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  **Nerve grafts and nerve conduits materials**

|  |
| --- |
| **Graft** |
| **Autologous tissue grafts** |
| 1. Nerve grafts (Gold Standard) |
| 2. vein grafts |
| 3. Muscle grafts |
| 4. Epineurial sheaths |
| 5. Tendon grafts |
|  |
| **Nonautologous/acellular grafts** |
| 1. Immunosuppression with allografts |
| 2. Acellular allografts and xenografts |
| Thermal decellularization |
| Radiation treatment |
| Chemical decellularization |
| 3. Small intestinal submucosa (SIS) |
| 4. Human amnion |
|  |
| **Natural-based materials** |
| 1. Extracellular matrix (ECM) protein based materials |
| Fibronectin |
| Laminin |
| Collagen |
| 2. Hyaluronic acid-based materials |
| 3. Fibrin/fibrinogen |
| 4. Other materials (alginate, agarose …) |
|  |
| **Syntetic materials** |
| 1. Biodegradable syntetic materials |
| Poly(lactic acid) (PLA) |
| Poly(lactic-co-glycolic acid) (PLGA) |
| Poly(caprolactone) |
| Poly(urethane) |
| Poly(organo)phosphazene |
| Poly(3-hydroxybutyrate) |
| Poly(ethylene glycol) "glue" |
| Biodegradable glass |
| 2. Electrically active materials |
| Piezoelectric |
| Ellectricaly conducing |
| 3. Nonbiodegradable synthetic materials |
| Silicone |
| Gore-Tex or ePTFE |

 |

Tabela 1.4.1 – Enxertos nervosos e materiais condutores de nervos.

Adaptada de Christine Schmidt (2003), pág. 301.