

# Glass ionomers

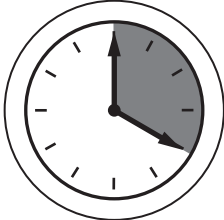


	Types of learning	Resources	UK General Dental Council learning outcome(s)*	Session learning outcome(s)
Session			1.14.5 1.14.1	Restore a posterior cervical cavity with glass ionomer cement
	Didactic elements		1.1.10 1.1.9	Discuss the properties of glass ionomer cements
	Learner-centred		1.1.10 1.1.9	Appreciate the limitations of glass ionomer cements
	Reflective	Chapter 15		Place a definitive glass ionomer cement using an aluminium matrix
	Critical appraisal			Discuss and develop criteria for an ideal cervical glass ionomer restoration
	Peer review			Discuss potential methods of finishing and polishing glass ionomer cements

\* - black (dentists), blue (therapists)

## Teaching notes

### KEY POINTS:

- ✓ Glass ionomer is relatively moisture tolerant, although ideally the tissues should be conditioned with polyacrylic acid first.
- ✓ Good compressive strength but poor tensile strength means that glass ionomers are useful in contained or 1-surface preparations, but poor as bulk fillers or core materials.
- ✓ The finished surface of a glass ionomer (and indeed a composite) restoration is optimal when cured against a plastic or metal matrix
- ✓ The glass ionomer should be kept hydrated to avoid desiccation and a poor aesthetic result

	<ul style="list-style-type: none"> <li>• Provide a brief overview of glass ionomer cements – how do they set and adhere- how do their mechanical properties compare to other restorative materials?</li> </ul>
	<ul style="list-style-type: none"> <li>• Demonstrate restoration of 14b – contour a metal matrix using a flat plastic and mortenson's condenser. Pickup sticks can be used to transfer the matrix. Use dentine conditioner and discuss the action of this chemical. Instrument the finished surface as little as possible but remove significant ledges. Cover with one thin layer of varnish. How will they know when the material has set?</li> <li>• Students to restore <b>natural 14b, 24b, 44b and 31b</b></li> </ul>
	<ul style="list-style-type: none"> <li>• Peer review and critical appraisal of all restorations.</li> </ul>

### Glass ionomer restoration assessment criteria

- No voids/deficiencies
- Gross excess removed, no ledges
- Minimal flash at margins
- Not dehydrated
- Application of a thin layer of varnish
- Rebuilds contour
- No foreign bodies
- Smooth finish