

**Academy of Dental Materials Meeting – Portland, Oregon
October 29-31, 2009**

Adhesion in Dentistry – Analyzing Bond Strength Testing Methods, Variables and Outcomes

October 29, 2009	<u>Day 1 Topic – Adhesion Tests: The Science and the Testing Variables</u>
8:30-9:30 am	A Review of Adhesion Science Sally Marshall (United States)
9:30-10:30 am	Variables Related to the Materials and Preparing for Bond Strength Testing Lawrence Mair (United Kingdom)
10:30 – 12:00 am	Poster Session/Break
12:00 – 1:00 pm	Variables Related to the Clinical Situation and Treatment of the Substrate Jorge Perdigao (United States)
1:00 – 1:10 pm	Concluding Remarks
October 30, 2009	<u>Day 2 Topic – Adhesion Tests: The Test Methods –Attributes and Limitations</u>
8:30-9:30 am	Review of “Macro” Test Methods – Shear and Tension Roberto Braga (Brazil)
9:30-10:30 am	Review of “Micro” Test Methods – Shear and Tension Steven Armstrong (United States)
10:30 – 12:00 am	Poster Session/Break
12:00 – 1:00 pm	Review of the Fracture Toughness Approach Karl-Johan Soderholm (United States)
1:00 – 1:10 pm	Concluding Remarks
1:15 – 2:15 pm	Business meeting
October 31, 2009	<u>Day 3 Topic – Adhesion Tests: The Relationships and Outcomes</u>
8:30-9:30 am	Direct Comparison of the Results of the Different Test Methods Susanne Scherrer (Switzerland)
9:30-10:30 am	Relationship Between Bond Strength Tests and Other In Vitro Phenomena Jungi Tagami (Japan)
10:30 – 12:00 am	Poster Session/Break
12:00 – 1:00 pm	Relationship Between Bond Strength Tests and Clinical Outcomes Bart Van Meerbeek (Belgium)

1:00 – 1:10 pm Concluding Remarks

Overall Goal: Provide a critical assessment of the various test methods used for dentin and enamel bonding studies in order to identify general trends, important variables to be considered, and their relation to outcomes. The results of this conference may serve as a basis for a future meeting whose goal might be to reach consensus about what is important to include in bond strength testing and which method may be most accurate, reliable and preferred.

October 29, 2009 Day 1 Topic – Adhesion Tests: The Science and the Testing Variables

A Review of Adhesion Science - Sally Marshall

Objective: Set the stage for the rest of the talks by providing a background into the science of adhesion, independent of the testing method, and what are important variables to consider in this area

Variables Related to the Materials and Preparing for Bond Strength Testing - Lawrence Mair

Objective: Review the literature regarding the materials variables involved in bond testing, independent of method, such as aging, fatigue, thermal cycling, curing of the adhesive, etc.

Variables Related to the Clinical Situation and the Substrate Treatment – Jorge Perdigo

Objective: Review the literature regarding the substrate variables involved in bond testing, independent of method, such as substrate selection, storage conditions, preparation, treatment prior to bonding, etc.

October 30, 2009 Day 2 Topic – Adhesion Tests: The Test Methods –Attributes and Limitations

Review of “Macro” Test Methods – Shear and Tension - Roberto Braga

Objective: Critically review the literature regarding the mechanics, geometry, load application and other testing parameters (i.e. speed) of “Macro” adhesion tests, outlining their advantages and limitations

Review of “Micro” Test Methods – Shear and Tension - Steven Armstrong

Objective: Critically review the literature regarding the mechanics, geometry, load application and other testing parameters (i.e. speed) of “Micro” adhesion tests, outlining their advantages and limitations

Review of the Fracture Toughness Approach - Karl-Johan Soderholm

Objective: Critically review the literature regarding the mechanics, geometry, load application and other testing parameters (i.e. speed) of “Fracture Toughness” adhesion tests, outlining its advantages and limitations

October 31, 2009 Day 3 Topic – Adhesion Tests: The Relationships and Outcomes

Direct Comparison of the Results of the Different Test Methods - Susanne Scherrer

Objective: Present a comprehensive comparison of the results of the different test methods, directly relating outcomes for specific tests involving the same materials, and highlighting general relationships between the tests

Relationship Between Bond Strength Tests and Other In Vitro Phenomena - Jungi Tagami

Objective: Present a comprehensive discussion of the results of the different test methods and their correlation to other physical phenomena evaluated in vitro, such as leakage, marginal assessments, etc.

Relationship Between Bond Strength Tests and Clinical Outcomes – Bart Van Meerbeek

Objective: Present a comprehensive discussion of the results of the different test methods and their correlation to clinical outcomes, such as leakage, marginal assessments, retention, caries, etc.