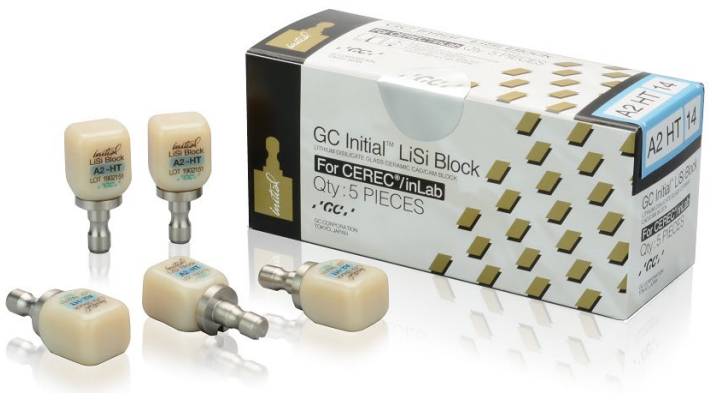
Evidence-based Dentistry Newsletter

GCI AG, March 2025



Smile for the World
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[A randomized controlled clinical trial on press and block lithium disilicate partial crowns: A 4-year recall](#) — 4 — NEW

- Ferrari-Cagidiaco, E., Verniani, G., Keeling, A., Zarone, F., Sorrentino, R., Manfredini, D., & Ferrari, M. 2024. Am J Dent, 37(2), 85-90.

[A Randomized Controlled Clinical Trial on Lithium Disilicate Veneers Manufactured by the CAD-CAM Method: Digital Versus Hybrid Workflow](#) — 4 — NEW

- Verniani, G., Ferrari, M., Manfredini, D., & Cagidiaco, E. F. (2024). Prosthesis, 6(2), 329-340

[Two-body wear of novel monolithic lithium-silicate ceramic materials and their corresponding different antagonists](#) — 4

- Stawarczyk B, Meinen J, Wuersching S. J Dent. 2024 May:144:104952. Epub 2024 Mar 19.

Key Map	
	Strong
	Durable
	Aesthetic
	Time-saving
	Cost-efficient

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Evaluation of Dimensional Accuracy of Lithium Disilicate Glass-Ceramic Blocks 5

- M. Onodera, K. Yamamoto, Y. Hokii, S. Akiyama, T. Sato. 2024. CED/NOF-IADR Oral Health Research Congress. J Dent Res Vol 103 (Spec Iss B): 416

Fatigue Behaviour of Fully Crystalized Glass-Based CAD/CAM Ceramics 5

- Yanning C, Chun Yin K, Xuedong B, Kiho C, James Kit-hon T. 102nd General Session & Exhibition of the IADR. J Dent Res Vol 103 (Spec Iss A):2237

Key Map	
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Full paper Initial LiSi Block

TITLE	**A randomized controlled clinical trial on press and block lithium disilicate partial crowns: A 4-year recall**
REFERENCE	Ferrari-Cagidiaco, E., Verniani, G., Keeling, A., Zarone, F., Sorrentino, R., Manfredini, D., & Ferrari, M. 2024. Am J Dent, 37(2), 85-90 https://pubmed.ncbi.nlm.nih.gov/38704851/
∞	At the 1-year and 4-year follow-up periods, crowns made from LiSi Block and LiSi Press demonstrated comparable performance, with a 100% survival rate and a 90% success rate after 4 years of clinical service.
💡	**Randomized clinical trial protocols are one of highest level of evidence-based dentistry. Therefore, results presented here, with high success and survival rates of LiSi Block, are outstanding.**

TITLE	**A Randomized Controlled Clinical Trial on Lithium Disilicate Veneers Manufactured by the CAD-CAM Method: Digital Versus Hybrid Workflow**
REFERENCE	Verniani, G., Ferrari, M., Manfredini, D., & Cagidiaco, E. F. (2024). Prosthesis, 6(2), 329-340. https://doi.org/10.3390/prosthesis6020025
∞	After 2 years, LiSi Block veneers showed good clinical performance.
💡	**Randomized clinical trial protocols are one of highest level of evidence-based dentistry. Therefore, results presented here, with good clinical performance of LiSi Block, are outstanding.**

TITLE	**Two-body wear of novel monolithic lithium-silicate ceramic materials and their corresponding different antagonists**
REFERENCE	Stawarczyk B, Meinen J, Wuersching S. J Dent. 2024 May:144:104952. Epub 2024 Mar 19. doi:10.1016/j.jdent.2024.104952
🏋	LiSi Block showed the lowest wear among all materials tested - e.max CAD and Cerec Tessera.
💡	**This study suggests that the HDM - High Density Micronization - technology for CAD/CAM, in which smaller crystals are dispersed in higher density, can improve the wear resistance of LiSi Block restorations.**

Abstract Initial LiSi Block

TITLE	**Evaluation of Dimensional Accuracy of Lithium Disilicate Glass-Ceramic Blocks**
REFERENCE	M. Onodera, K. Yamamoto, Y. Hokii, S. Akiyama, T. Sato. 2024. CED/NOF-IADR Oral Health Research Congress. J Dent Res Vol 103 (Spec Iss B): 416 *Link not available yet*
	LiSi Block crowns showed the best accuracy, when compared to e.max CAD and CEREC Tessera and this accuracy remained consistent regardless of the firing process.
	LiSi Block does not need firing, not only saving time, but also contributing to an accurate restoration. Distortion or changes in dimension may lead to clinical failure. LiSi Block's technology may help to prevent distortions.

TITLE	**Fatigue Behaviour of Fully Crystalized Glass-Based CAD/CAM Ceramics**
REFERENCE	Yanning C, Chun Yin K, Xuedong B, Kiho C, James Kit-hon T. 102nd General Session & Exhibition of the IADR. J Dent Res Vol 103 (Spec Iss A):2237 https://iadr.abstractarchives.com/abstract/24iags-4006466/fatigue-behaviour-of-fully-crystallised-glass-based-cadcam-ceramics
	LiSi block showed high survival probabilities , comparable to Celtra DUO and Empress CAD.
	The high load bearing capacity of LiSi Block may help to prevent catastrophic failure even in the presence of high masticatory forces.