

# How a Multi-Location Dental Practice Reduced Procedure Time by 30% with Isolite®

MARCH 2021

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The DentaLink is a multi-location dental practice based in Ballwin, MO and St. Louis, MO. This multi-generational practice has been serving their community for over 35 years, and prides themselves on taking care of people, not teeth. Prior to using Isolite, Dr. Allan Link and his son, Dr. Andrew Link practiced dentistry like many dentists do today. They have incorporated cutting-edge technology across their locations to make dental care more comfortable and efficient for their patients. From digital x-rays to lasers to CEREC, the DentaLink had gone to great lengths to improve their efficiency. But when it came to isolation, they, like many dentists, had not progressed beyond cotton rolls, dry angles, and the rubber dam.

Surrounded by other technology that had made their lives and their patient's experience better, they knew there had to be a better way to approach intra-oral dental isolation. That's when Dr. Andrew Link reached out to Zyris to explore upgrading their approach to using the Isolite 3 Dental Isolation System.

## Summary

Over the course of several months, DentaLink recorded the time it took to perform 878 procedures using either traditional isolation methods or the Isolite 3 Dental Isolation System. When using the Isolite 3 system, DentaLink was able to realize:

- **30% efficiency gain in crown procedures**
- **22% efficiency gain in prophylaxis procedures**

## Evolving Isolation Beyond Cotton Rolls and Dry Angles

In the past, Dr. Allan Link and Dr. Andrew Link relied upon cotton rolls, dry angles, and rubber dam to help

isolate the area of the mouth they were working on. These traditional materials were comfortable to them and their team for obvious reasons. But they knew that if they wanted to improve the efficiency of their entire practice, they needed to evaluate and consider changes to even the most common of techniques.

## Previous Exposure and an Open Mind

As a dental student at the University of Missouri's Kansas City School of Dentistry, Dr. Andrew Link had been exposed to the Isolite Mouthpiece. UMKC has for years incorporated the Isolite Mouthpiece into their education program to help dental students perform procedures without an assistant, but have isolation, retraction, and continuous HVE suction throughout a procedure.

Reflecting back on his experience with the Isolite Mouthpiece, Dr. Andrew Link brought up the idea of adopting the Isolite 3 Dental Isolation System into the practice. Dr. Allan Link embraced the idea by having an open mind to new ways that would not only help them be more efficient, but help patients have a more enjoyable experience with their practice.

## Evaluating and Measuring their Experience

Having an undergraduate degree in Economics, Dr. Andrew Link knew it would be important to measure the impact of the investment in the Isolite Dental Isolation System. In collaboration with Zyris, Dr. Andrew Link established a protocol in both locations to establish a baseline of procedure times using their current methods of isolation.

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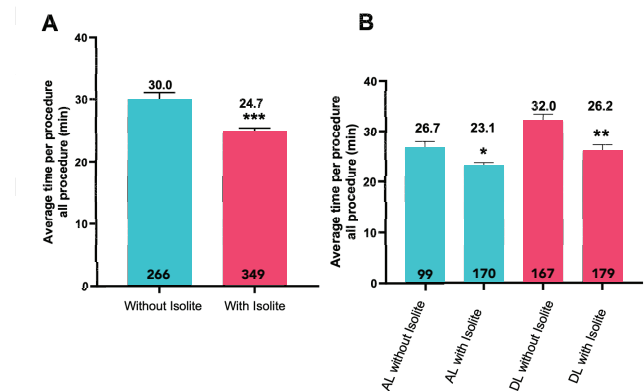
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To establish their baseline, for each procedure, they:

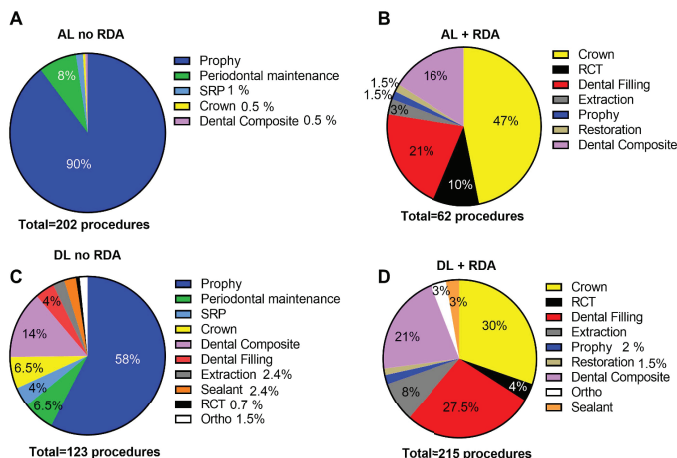
1. Recorded the patient's age and gender (no personally identifiable information was recorded for this case study)
2. Each procedure was categorized into one of the following: Prophyl, Filling, RCT, Crown, Perio Maintenance, Composite, SRP, Extraction, Ortho
3. The method of isolation was recorded as one of the following: Cotton Roll, Dry Angle, None, Other, Rubber Dam
4. The scheduled amount of time for the procedure was recorded
5. The actual amount of time for the procedure was recorded. When the dentist started the procedure, the DA recorded the time of day. When the dentist completed the procedure and the patient was getting out of the chair, the DA recorded this as the end of the procedure.

To measure the impact of the Isolite, they followed the same protocol, but included the Isolite 3 Dental Isolation System as a method of intra-oral isolation in step 3 above.

They recorded this information for a total of 878 procedures; 418 procedures in their baseline measurements, and 460 procedures using the Isolite.



**Figure 4:** Average time per procedure of all procedure performed by both dentist (A) or performed by AL and DL (B) with and without Isolite system. **A.** Mean data showing the average time per procedure (as indicated outside and above the histogram), 266 procedures were performed without Isolite and 349 with Isolite (as indicated inside the histogram). Data are expressed as mean  $\pm$  SEM and compared using the Mann-Whitney rank test \*\*\* $p < 0.001$ . **B.** Mean data showing the average time per procedure (as indicated outside and above the histogram), 99 and 167 procedures were performed by AL and DL respectively without Isolite. 170 and 179 procedures were performed by AL and DL respectively with Isolite (as indicated inside the histogram). Data are expressed as mean  $\pm$  SEM and compared using the Kruskal-Wallis 2-way analysis of variance with Dunn's test for post hoc analysis. \* $p < 0.05$ , \*\* $p < 0.01$ . GraphPad Prism (version 8.4.3, Graphpad, San Diego, California) used for statistical analysis.



## Previous Exposure and an Open Mind

When performing crown procedures, both dentists saved 30.6% in time per procedure, representing approximately 11 minutes per patient. When scheduling patients for a crown procedure, the DentalLink office would schedule each patient to a one hour appointment. This was very prudent, as without Isolite, the average time per procedure, measured over 56 crown procedures, was 37.3 minutes.

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But with the Isolite, 49 crown procedures performed by both dentists took an average of only 25.9 minutes. For Dr. Allan Link, the time savings were even more dramatic. On average, he was able to reduce the time per procedure by 55% from  $46.2 \pm 6.6$  min without Isolite versus  $20.75 \pm 3.0$  min with Isolite.

Reflecting back on his experience with the Isolite Mouthpiece, Dr. Andrew Link brought up the idea of adopting the Isolite 3 Dental Isolation System into the practice. Dr. Allan Link embraced the idea by having an open mind to new ways that would not only help them be more efficient, but help patients have a more enjoyable experience with their practice.

## Average Time Savings Across All Procedures

When combining the data collected for all of the procedures, Dr. Allan Link and Dr. Andrew Link were able to reduce their procedure time by 17.7%. The average time per procedure was  $30.0 \pm 1.0$  min for 266 procedures performed without Isolite and  $24.7 \pm 0.7$  min for 349 procedures performed with Isolite.

Further, the data was evaluated to compare the efficiencies gained by each individual dentist. Dr. Allan Link was able to reduce his procedure time by 13.5% when using the Isolite. Dr. Andrew Link was able to improve his efficiency by 18% when using the Isolite getting his average procedure time well under 30 minutes.

## Time Savings for Hygienists

Hygiene procedures are an important part of generating

revenue for any dental practice, so improving efficiencies in hygiene operatories can have a positive impact on a practice's revenue and profit.

As part of the study, Isolite 3 Dental Isolation Systems were installed in the hygiene operatories in both practice locations. The results were surprising. Over the course of 239 prophylaxis procedures without Isolite, the average time per procedure was 23.8 minutes. For 226 prophylaxis procedures, the hygienists at the DentaLink used Isolite on their patients and reduced the average procedure time to just 18.5 minutes. Overall, they saved 22% of procedure time.

Given that prophylaxis procedures accounted for 53% of total procedures over the time of this case study, a 22% reduction in time represents a significant savings to the practice.

## Conclusion

Over the 11 month period where the Isolite Dental Isolation System was measured, clinicians saved 17.7% of procedure time across composite, crown, and filling procedures. For preventative procedures including prophylaxis, SRP, and periodontal maintenance, they saved 24.4% of procedure time.

Crown procedures saw the biggest savings of time with a 30.6% reduction in procedure time when using the Isolite.

If you'd like to see if your practice can see similar results as the DentaLink. Visit <http://zyr.is/DentaLink>.