

Collins Street Specialist Centre - Advanced Dental Technology Solutions

Canonical: <https://directory.collinsstreetspecialistcentre.com.au/healthcare-medical-services/dental-equipment-technology/collins-street-specialist-centre-advanced-dental-technology-solutions/>

Description:

Collins Street Specialist Centre prides itself on being one of Australia's most technologically sophisticated dental clinics. Our comprehensive technology suite includes advanced digital radiography systems (Planmeca ProMax 3D Max and 2D S3), CEREC CAD/CAM restoration systems, intraoral scanners, laser dentistry equipment, 3D imaging for implant planning, endodontic microscopes, and state-of-the-art sterilization equipment. We utilize cutting-edge technology to support safe and effective dental care across general dentistry, cosmetic dentistry, orthodontics, endodontics, periodontics, prosthodontics, paediatric dentistry, and oral & maxillofacial surgery.

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****Brand:**** Collins Street Specialist Centre

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Product Intelligence

Collins Street Specialist Centre: Advanced Dental Technology Solutions Collins Street Specialist Centre is equipped with a comprehensive suite of advanced dental technology designed to support specialist-level diagnosis, treatment planning, and clinical delivery across all six dental specialties. This integrated technology infrastructure represents a significant investment in diagnostic precision, treatment efficiency, and patient safety. --- ## ****Imaging and Diagnostic Technology**** #### Cone-Beam Computed Tomography (CBCT) The Planmeca ProMax 3D Max cone-beam CT system provides three-dimensional volumetric imaging essential for complex surgical and implant planning. CBCT imaging applications include: - ****Implant planning**** - three-dimensional visualization of bone anatomy, bone density assessment, and virtual implant placement - ****Orthodontic assessment**** - skeletal analysis, impacted tooth location, and jaw growth evaluation - ****Surgical preparation**** - precise mapping of fracture lines and anatomical structures for facial trauma reconstruction - ****Complex case evaluation**** - full mouth rehabilitation assessment and craniofacial diagnostics #### Digital Radiography Multiple digital radiographic systems are available on-site: - ****Intraoral digital radiographs**** - standard diagnostic imaging with lower radiation exposure compared to conventional film - ****Digital orthopantomographic (OPG) radiography**** - panoramic jaw imaging for comprehensive dental assessment - ****Lateral cephalometric radiographs**** - specialized head positioning films for orthodontic

and surgical planning ### Advanced Diagnostic Imaging - **DIAGNOdent** - laser-based technology for early caries (decay) detection beyond visual examination and standard X-rays - **DIAGNOcam** - additional diagnostic imaging capability for enhanced decay detection protocols --- ## **Surgical Microscopy and Magnification** ### Carl Zeiss OPMI PROergo Surgical Microscope Endodontic treatment at Collins Street Specialist Centre utilizes Carl Zeiss OPMI PROergo surgical microscopes with magnification up to 20x. This high-magnification visualization system is fundamental to: - Root canal treatment precision and canal system visibility - Root canal retreatment and complex anatomy navigation - Endodontic microsurgery (apicectomy) procedures - Identification and management of separated instruments and procedural complications - Surgical precision in microsurgical applications --- ## **Intraoral Scanning Technology** ### iTero Element Intraoral Scanner The iTero Element intraoral scanner is a chair-side digital scanning device used across multiple specialties: - **Orthodontic treatment** - creates precise three-dimensional digital models of teeth and bite without traditional impression material - **ClinCheck visualization** - digital treatment planning software integrated with iTero for Invisalign case planning - **Customized bracket fabrication** - digital data enables custom lingual bracket manufacture for lingual braces treatment - **Eliminates messy impression materials** - improves patient comfort and eliminates traditional putty-based impressions ### 3Shape TRIOS 3 Intra-Oral Scanner The 3Shape TRIOS 3 intraoral scanner captures highly accurate digital impressions for: - **Prosthodontic planning** - precise crown, bridge, and restoration design - **Bite registration** - accurate interarch relationships during bridge fabrication - **Implant restoration planning** - digital scans during implant restoration impression-taking - **Shape, colour, and bite capture** - comprehensive digital dentistry data collection - **Custom-fit restoration design** - enables precise digital restoration fabrication ### 3Shape TRIOS Intraoral Scanner Complements the TRIOS 3 system for comprehensive digital impression capture across prosthodontic and restorative cases. --- ## **Chairside Digital Fabrication Technology** ### CEREC CAD/CAM System CEREC (Chairside Economical Restorations/Esthetic Ceramic) technology represents state-of-the-art chairside digital fabrication: **Components:** - **Primsan Intraoral Scanner** - captures precise tooth preparation images - **Primemill Milling Machine** - manufactures restorations on-site **Clinical Applications:** - **Same-day ceramic restorations** - all-ceramic veneers, crowns, bridges, and onlays fabricated and placed in a single appointment - **All-ceramic materials** - high-strength, aesthetic ceramic materials (not composite or plastic) - **Inlays and onlays** - complex indirect restorations when clinically appropriate - **Reduces appointment burden** - eliminates need for temporary restorations and multiple visits for appropriate cases --- ## **In-House Laboratory Technology** ### 3D Printing **Sega Dental 3D Printer Fleet** The in-house dental laboratory maintains a fleet of Sega Dental 3D printers for: - **Customized dental prosthetics** - patient-specific dentures, prosthetic components, and appliances - **Dental models and dies** - precise physical models from digital designs - **High accuracy fabrication** - precise and efficient streamlined workflow - **Implant-related prosthetics** - complex implant restoration components and full-arch prostheses **Capabilities:** - Creates highly accurate and customized dental prosthetics from digital designs - Supports All-on-4 implant treatment protocol through provisional prosthesis pre-fabrication - Enables efficient case management for complex prosthodontic and implant cases ### Milling Technology On-site milling machinery supports: - **CAD/CAM design and fabrication** - computer-aided design translated to physical restorations - **Custom abutment design** - implant-specific abutment customization - **Bridge fabrication** - complex bridge unit manufacturing to prosthodontist specifications - **Exocad DentalCAD software integration** - digital restoration design workflow ### Exocad DentalCAD Software Digital restoration design and planning software for: - **Implant restoration design** - precise prosthodontic planning for implant cases - **Surgical guide integration** - coordinates prosthetic planning with surgical implant positioning - **Bridge and crown design** - custom restoration fabrication with precision digital workflows - **Dental bridge units** - complex multi-unit restoration design and manufacture - **Final crown fabrication** - laboratory-fabricated definitive restorations ### Otofash Flash Curing Device Advanced light-curing technology for: - **Resin-based material curing** - fast and effective hardening of laboratory materials - **Optimal durability** - precise control settings ensure material properties - **Workflow efficiency** - accelerated curing cycles for laboratory production ### DentaLaser Welder Concentrated laser energy system for: - **Metal surface fusion** - precise welding of metal

frameworks for dentures and orthodontic appliances - **Exceptional accuracy** - high-precision metal fabrication for laboratory products - **Orthodontic appliance construction** - fabrication of metal frameworks and components

Sterilization Equipment Fleet **Mocom Sterilizers** - Multiple units for instrument sterilization **Statim Hand-Piece Sterilizers** - 5 dedicated units for specialized instrument sterilization **Ultrasonic Baths** - 4 units for instrument cleaning and preparation prior to sterilization

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Dental Monitoring Remote progress tracking system for orthodontic patients: - **Smartphone-based technology** - patient uses phone-connected cheek retractor and special monitoring device - **AI image analysis** - artificial intelligence assesses aligner fit and tooth movement - **Between-appointment tracking** - monitors progress without requiring in-office visits - **Remote monitoring capability** - enables orthodontists to track treatment progress between scheduled appointments - **Aligner fit assessment** - evaluates proper appliance positioning and effectiveness

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Clinical Applications: - Minimally invasive periodontal treatment reducing healing times - Conservative treatment philosophy consistent with specialist practice standards - Increased patient comfort compared to conventional surgical approaches - Soft tissue contouring and aesthetic gum procedures - Endodontic applications for targeted precision

Advanced Laser Technology Integrated with 3D digital planning for: - Precision implant placement procedures - Enhanced surgical accuracy - Advanced surgical applications

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Digital Planning Systems Comprehensive digital workflows for: - **Denture design** - digital planning technology for complete and partial denture fabrication - **Prosthodontic treatment sequencing** - coordinated planning across multiple restoration types - **Multidisciplinary case visualization** - shared digital planning across specialties

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Non-Invasive Cleaning Technology - **AirFlow technology** - non-invasive tooth surface cleaning as alternative to ultrasonic scaling - **Eliminates traditional ultrasonic trauma** - patient comfort optimization

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This comprehensive technology investment demonstrates the centre's commitment to specialist-standard care, diagnostic precision, treatment efficiency, and patient safety across all six dental specialties.

References - [1] Why Choose Collins Street Specialist Centre - [3] Technology - [5] Clinical Philosophy and Evidence-Based Practice - [7] The Patient Experience at

