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Ngā kaiakatanga mō ngā  
kaihangarau tiaki niho

Dental technician competencies

## Dental technician competencies

### Introduction

The Council defines competence as the knowledge, skills, attitudes, and behaviours ('competencies') an oral health practitioner must have to practise safely, competently, and professionally in their scope of practice.

This document describes the minimum competencies a graduate of dental technology must achieve through their education and training to be registered in the scope of dental technology.

The competencies prescribe the scope of practice for dental technology.

The competencies are presented in the following domains:

- Ngaiotanga - Professionalism
- Whakawhiti kōrero - Communication
- Kaiakatanga ahurea – Cultural competence (effective until 31 December 2022)
- Haumarutanga ahurea - Cultural safety (effective from 1 January 2023)
- Ngā whakaaro kaikini - Critical thinking
- Mōhioatanga pūtaiao me te haumaruru - Scientific and clinical knowledge
- Ngā ratonga hangarau mō te whare tiaki niho - Dental technology services.

The competencies broadly describe the knowledge, skills, attitudes and behaviours expected of a dental technician; and are outcomes focussed. The learning curriculum will provide the level and extent of detail needed to facilitate graduates' achievement of these competencies, for registration in the scope of practice for dental technology.

It is assumed that all competencies are performed with a degree of quality consistent with patient and whānau well-being, and that dental technicians can self-evaluate the quality of the services they provide.

There is also a clear link between a number of the competencies and the standards embodied in the [standards framework](#) that registered oral health practitioners must meet.

### Aims

The competencies document aims to describe the minimum competencies for a registrant in the dental technology scope of practice, while not restricting the ways in which education providers achieve these outcomes.

The overarching aim is to develop a well-rounded dental technician who is:

- scientifically grounded and technically skilled
- practises safely and competently as a member of the health care team
- provides evidence-based, patient-centred care and culturally safe care which promotes and protects patient and whānau health and wellbeing, and
- adheres to high standards of ethical and professional behaviour.

## **Ongoing competence**

Each practitioner's scope of practice is commensurate with the practitioner's approved education, training, experience, and competence.

It is expected that over time practitioners will maintain and enhance their professional knowledge and skills for application within their scope of practice, through self-assessment, ongoing learning and professional interaction.

On the learning continuum, competence on graduation develops into confidence, proficiency, and for some, ultimately excellence.

Once registered, competence must be maintained throughout a practitioner's career in the areas they practise in. Some practitioners may choose to limit their individual practice to certain areas within their scope of practice.

It is essential that practitioners critically self-reflect on their competence throughout their professional career to support their ongoing learning or identify their own limitations and how that may impact on their practice.

Patient care in those areas where competence has not been maintained, must be referred to another suitable practitioner.

## **Uses**

The Council will use this document as a reference in carrying out its key functions of:

- Accreditation of education and training programmes for dental technicians.
- The assessment of international dental technology graduates for practice in Aotearoa New Zealand.
- In case of a competence concern, to support the assessment of whether the dental technician is meeting the minimum competencies.
- If competence deficiencies are confirmed, use it as the minimum standard the dental technician must attain to reach competence again in those areas deemed insufficient.

Overseas registration applicants do not meet the competencies related to the New Zealand context, legislation and laws, health regulation and cultural safety. If registration is granted, these practitioners will be required to attain these competencies within a defined timeframe.

## **Context**

An understanding of the terms 'evidence-based', 'patient-centred' and 'culturally safe' care is key in understanding and achieving the competencies. They represent the overall approach to care practitioners are expected to develop.

Explanations of these terms can be found in the glossary on pages 14 - 16 and may provide further context to facilitate understanding of the competencies. The glossary also includes translation of Māori in this document.

## **Te Tiriti o Waitangi/Treaty of Waitangi**

The Council is seeking to improve Māori oral health outcomes underpinned by Te Tiriti o Waitangi/Treaty of Waitangi. This is not a new approach and is consistent with central government policy in relation to Māori hauora/health and the Ministry of Health's *Whakamaua: Māori Health Action Plan 2020-2025*, which has an equity focus. Recognition of health's role to effect Te Tiriti is further demonstrated by the recently announced central government health sector reforms with the establishment of the new Māori Health Authority.

Oral health practitioners' competence in relation to Māori oral health care must be informed by Te Ao Māori, Tikanga Māori and Te Reo Māori to achieve Pae Ora - healthy futures for whānau, hapū and iwi. This work, in the Council's view, will contribute to long term oral health benefits for Māori, their whānau and hapū.

## **Acknowledgements**

The Council recognises the input received from Te Aō Marama – New Zealand Māori Dental Association and the University of Otago Dental Technology Programme.

The cultural safety aspects were further informed by the Waitangi Tribunal Wai 2575: Health services and outcomes inquiry, Pae ora – healthy futures, the Nursing Council of New Zealand's *Guidelines for Cultural safety, the Treaty of Waitangi and Māori Health in Nursing Education and Practice* (2011), and the Medical Council of New Zealand's *Statement on Cultural Safety* (2019).

# 1. Ngaiotanga Professionalism

<p>Patients, colleagues and the public</p>	<p>A dental technician will be able to:</p> <ol style="list-style-type: none"> <li>1.1 Provide patient-centred care by putting the patient's needs first, and protect and promote patient and whānau or family wellbeing.</li> <li>1.2 Understand the concept of professionalism and how to develop and maintain an effective practitioner-patient relationship.</li> <li>1.3 Act with dignity and respect towards others by being open and honest, courteous, empathetic, and supportive in interactions, and acknowledging and respecting Tikanga Māori/Māori customs.</li> <li>1.4 Treat others fairly and without discrimination, respecting cultural values, personal disabilities, and individual differences.</li> <li>1.5 Respect patients' autonomy and their right to make their own oral health decisions, aligned with kāwanatanga/governance, tino rangatiratanga/sovereignty and ōritetanga/equity.</li> <li>1.6 Respect patients' right to complain and enable them to seek redress by facilitating the fair, simple, speedy, and efficient resolution of complaints.</li> <li>1.7 Respect and protect the confidentiality of patient information at all times, including situations outside the healthcare setting.</li> <li>1.8 Behave in a professional manner that maintains public trust and confidence in them personally, and the profession.</li> <li>1.9 Act to protect the interests of patients and colleagues from any risk posed by their own personal issues, health, competence, or conduct; or those of a colleague.</li> <li>1.10 Act to protect the interests of tamariki/children or young people in cases of suspected neglect or abuse by disclosing information to a relevant authority or person.</li> </ol>
<p>Laws and regulation</p>	<p>A dental technician will be able to:</p> <ol style="list-style-type: none"> <li>1.11 Practise in accordance with legal and regulatory requirements that affect oral health practice in Aotearoa New Zealand.</li> <li>1.12 Understand the relevance of Te Tiriti o Waitangi/Treaty of Waitangi. Specifically, the articles on kāwanatanga/governance, tino rangatiratanga/sovereignty and ōritetanga/equity.</li> </ol>

	<p>1.13 Understand and comply with the professional standards and practice standards of the Dental Council's standards framework, and adhere to the ethical principles, in their interactions with patients and their communities.</p>
<p>Professional development and ongoing competence</p>	<p>A dental technician will be able to:</p> <p>1.14 Critically self-reflect on their practice and apply this to their ongoing professional development; including reflecting on their decision-making, actions, performance, and whether culturally safe care has been achieved.</p> <p>1.15 Recognise the importance of ongoing learning and professional interaction as means of maintaining and enhancing professional knowledge and skills.</p>

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## 2. Whakawhiti kōrero Communication

### Communication

A dental technician will be able to:

- 2.1 Communicate respectfully, effectively and in a culturally appropriate way with and about patients, their parents, whānau or family, carers, representatives, kaiāwhina/support people, and the public.
- 2.2 Listen to their patients, recognise communication barriers, and take into account specific communication needs and preferences. This includes Te Reo Māori me ona Tikanga/Māori language and customs, communication needs and preferences.
- 2.3 Communicate honestly, factually and without exaggeration in all forms of communication.
- 2.4 Provide patients with the information they need and request, and facilitate their understanding of the information and their options.
- 2.5 Communicate openly and respectfully with colleagues, other members of the oral health team, other health professionals, other hauora/health providers and social organisations.

## 3(a) Kaiakatanga ahurea

### Cultural competence

(effective until 31 December 2022)

Culturally competent

A dental technician will be able to:

- 3.1 Understand Te Tiriti o Waitangi/Treaty of Waitangi and the application of the principles to their practice.
- 3.2 Recognise and respect the cultural diversity of the Aotearoa New Zealand population.
- 3.3 Describe the Māori world view of hauora Māori/Māori health, tikanga/customs and kawa/practices and apply this knowledge to their practice.
- 3.4 Use knowledge of whanaungatanga and Te Tiriti o Waitangi as a basis of their practice to establish functional relationships with Māori patients.
- 3.5 Understand that a patient's cultural beliefs, values and practices influence their perceptions of health, illness and disease; their health care practices; their interactions with health professionals and the health care system; and treatment preferences.
- 3.6 Recognise that the concept of culture extends beyond ethnicity and includes, but is not restricted to, age or generation; gender; sexual orientation; occupation and socioeconomic status; ethnic origin or migrant experience; religious or spiritual belief; and disability. Patients may identify with several hapū, iwi and/or cultural groupings.
- 3.7 Reflect on their own culture (including their own biases, attitudes, assumptions, stereotypes, prejudices and characteristics) and its impact on clinical interactions and the care they provide.
- 3.8 Understand the inherent power imbalance that exists in the practitioner-patient relationship and commit to work in partnership with their patients and whānau to enable culturally competent care.

## 3(b) Haumarutanga ahurea

### Cultural safety

(effective from 1 January 2023)

#### Culturally safe care

A dental technician will be able to:

- 3.1 Understand Te Tiriti o Waitangi/Treaty of Waitangi and their application when providing care.
- 3.2 Recognise and respect the cultural diversity of the Aotearoa New Zealand population.
- 3.3 Describe the Māori world view of hauora Māori/Māori health, tikanga/customs and kawa/practices and apply this knowledge to their practice.
- 3.4 Use knowledge of Te Kawa Whakaruruhau/cultural safety and Te Tiriti o Waitangi/Treaty of Waitangi as a basis for their practice, to achieve whanaungatanga-based relationships.
- 3.5 Understand the concepts of kāwanatanga/governance, tino rangatiratanga/sovereignty and օritetanga/equity in relation to Māori oral health outcomes.
- 3.6 Understand that a patient's cultural beliefs, values and practices influence their perceptions of health, illness and disease; their health care practices; their interactions with health professionals and the health care system; and treatment preferences.
- 3.7 Understand the impacts of racism, colonisation and power imbalance on Māori oral health, and the current state of inequitable access to care and hauora/health outcomes.
- 3.8 Provide culturally safe care - as determined by the patient, their whānau, hapū or community.
- 3.9 Recognise that the concept of culture extends beyond ethnicity and includes, but is not restricted to, age or generation; gender; sexual orientation; occupation and socioeconomic status; ethnic origin or migrant experience; religious or spiritual belief; and disability. Patients may identify with several hapū, iwi and/or cultural groupings.
- 3.10 Reflect on their own culture (including their own biases, attitudes, assumptions, stereotypes, prejudices and characteristics) and its impact on clinical interactions and the care they provide.
- 3.11 Understand the inherent power imbalance that exists in the practitioner-patient relationship and commit to work in partnership with their patients and whānau to enable culturally safe care.

## 4. Ngā whakaaro kaikini

### Critical thinking

#### Critical thinking

A dental technician will be able to:

- 4.1 Apply contemporary scientific knowledge to dental technology practice appropriately.
- 4.2 Critically evaluate published clinical, scientific, Matāuranga Māori and health related research; and integrate this information, where appropriate, into their practice.
- 4.3 Understand and apply the principles of good rangahau/research practice, including scientific method and critical evaluation of research and evidence or information.
- 4.4 Recognise and evaluate the impact of new techniques, materials, and technologies in dental technology practice.
- 4.5 Critically reflect on their individual knowledge and skills throughout their professional career, to inform their ongoing professional development or identify their own limitations and how that may impact on their current practice.

## 5. Mōhiotanga pūtaiao me te haumaru

### Scientific and clinical knowledge

Application of scientific and clinical knowledge

A dental technician will be able to apply the scientific and clinical knowledge base relating to:

- 5.1 Fundamental principles of chemistry, physics, and engineering as they relate to dental technology.
- 5.2 Anatomy and physiology of the head, neck, and oral cavity, relevant to dental technology.
- 5.3 Tooth development, tooth eruption and the occlusal development of the dentition in relationship to the development of the craniofacial complex.
- 5.4 The effect of tooth loss, and the impact of appliances, on the oral environment.
- 5.5 The core principles of infection prevention and control, including standard precautions, and reprocessing of reusable items, performance testing and validation when applicable (for example, when reusable items have been in contact with the oral environment). This includes consideration of tikanga Māori.
- 5.6 The science of dental materials used in the design and manufacture of prostheses and appliances. This includes:
  - clinical, physical and biological properties
  - how and why these may be modified by manipulation, environmental and chemical modifiers
  - how these changes relate to the success or failure of the material
  - safety and Te Taiao/environmental considerations.

## 6. Ngā ratonga hangarau mō te whare tiaki niho Dental technology services

<p>Obtaining prescribing clinician and patient information</p>	<p>A dental technician will be able to effectively obtain:</p> <p>6.1 Prescribing clinician and patient information relevant to the design, manufacture and delivery of prostheses and appliances, for example, name and address of the prescribing practitioner, name of the patient, a detailed prescription, etc.</p> <p><i>When providing repair services direct to patients</i></p> <p>6.2 Information related to a patient's:</p> <ul style="list-style-type: none"> <li>• presenting problem</li> <li>• concerns, ideas, wishes and expectations.</li> </ul> <p><i>When carrying out shade taking procedures</i></p> <p>6.3 Information related to a patient's:</p> <ul style="list-style-type: none"> <li>• concerns, ideas, wishes and expectations</li> <li>• current medical conditions, and allergies - to enable safe practice and effective management of medical emergencies.</li> </ul>
<p>Analysing the health practitioner's prescription and patient information</p>	<p>A dental technician will be able to:</p> <p>6.4 Analyse the health practitioner's prescription and the patient information to design and manufacture suitable prostheses and appliances using appropriate materials; and make repairs.</p>
<p>Planning services</p>	<p>A dental technician will be able to:</p> <p>6.5 Determine whether they have the knowledge, skills and competence to provide the services required, and refer appropriately when they do not.</p> <p><i>When planning to provide repair services direct to patients:</i></p> <p>6.6 Gain informed consent, appropriate for the individual, and ensure informed consent remains valid throughout.</p> <p>6.7 Refer the patient to the appropriate oral health professional for an intra-oral examination to ensure that the repaired prosthesis or appliance is fit for purpose.</p>
<p>Providing services</p>	<p>A dental technician will be able to:</p> <p><i>Design, manufacture, and repair</i></p> <p>6.8 Design, manufacture, and repair fixed and removable oral and extraoral appliances and prostheses, so they are fully functional, effective, and aesthetically pleasing, including:</p>

- Complete removable dentures and overdentures
- Removable partial dentures including precision attachments
- Fixed and removable orthodontic appliances
- Crowns and bridges including precision attachments on natural teeth and implants
- Implant overdentures and implant supported dentures
- Tissue and implant supported maxillofacial, ocular and auricular appliances and prostheses, and other appliances and prostheses involved in the overall prosthetic rehabilitation of patients
- Appliances for the treatment of temporomandibular, speech, sleep, and audio disorders
- Diagnostic and radiographic stents.

*Dental materials, design and manufacturing techniques*

- 6.9 Select dental materials and manufacturing techniques for use in the manufacture and repair of fixed and removable prostheses and appliances, appropriate for their application.
- 6.10 Ensure that the manufacturer's guidelines are followed for materials and components used in the manufacturing of prostheses and appliances.
- 6.11 Use a range of recognised design and manufacturing techniques including contemporary digital technology.

*Shade selection and reproduction*

- 6.12 Take and reproduce the shade of the natural dentition.
- 6.13 Check shades, which may include the removal of a pre-loosened temporary restoration and try-in of the permanent restoration, without removal or placement of an implant abutment, as prescribed by and prior to the final fitting<sup>1</sup> by a dentist or dental specialist.

*Maintenance*

- 6.14 Provide advice on the care and maintenance of prostheses and appliances.

*Medical emergencies*

- 6.15 Manage medical emergencies that may occur during dental technology practice.

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<sup>1</sup> Final fitting for dental technicians means ensuring the patient returns to the prescribing dentist/dental specialist as soon as possible on the same day for the refitting of the temporary or fitting of the permanent restoration.

<p>Safe practice</p>	<p>A dental technician will be able to:</p> <p>6.16 Establish, manage, and maintain a safe working environment for patients, staff and colleagues; and to protect the public. This includes a culturally safe workplace and the routine and proper use of infection prevention and control measures.</p> <p>6.17 Identify and appropriately manage potential hazards (including hazardous materials), and behavioural risks in the place of work.</p> <p>6.18 Understand the principles and legal obligations of waste management and show awareness of practices used to limit unnecessary waste.</p> <p>6.19 Produce and maintain accurate, time-bound, and up-to-date patient records which are secure.</p> <p>6.20 Confirm with the patient any current medical condition/s or allergies they might have.</p> <p>6.21 Manage a medical emergency appropriately and effectively in their workplace within their prescribed resuscitation training.</p>
<p>Teamwork</p>	<p>A dental technician will be able to:</p> <p>6.22 Understand the value of interdisciplinary practice in providing patient-centred care, and work collaboratively with oral health and other health practitioners for enhanced patient outcomes.</p> <p>6.23 Recognise the unique set of skills and competencies that each member of the oral health team contributes to patient care and the promotion of oral health in the whānau, hapū, iwi and community.</p>
<p>The practice environment</p>	<p>A dental technician will be able to:</p> <p>6.24 Develop and comply with systems and processes in their workplace to support safe and effective patient care.</p> <p>6.25 Effectively manage their own time and resources.</p> <p>6.26 Describe the basic principles of practice administration and management.</p> <p>6.27 Be familiar with the use of contemporary information technology tools commonly used in practice to support safe and effective care.</p>

## Glossary

<p>Patient-centred care</p>	<p>Patient-centred care can be defined as providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions (Institute of Medicine 2011).</p> <p>It represents an all-inclusive approach. The widely accepted dimensions of patient-centred care are:</p> <ul style="list-style-type: none"><li>• Fast access to reliable health advice.</li><li>• Effective treatment delivered by trusted professionals.</li><li>• Continuity of care and smooth transitions.</li><li>• Patient involvement in decisions and respect for patient preferences.</li><li>• Clear, comprehensible information and support for self-care.</li><li>• Involvement of, and support for, family, whānau and kaiāwhina/carers.</li><li>• Emotional support, empathy, and respect.</li><li>• Attention to physical and environmental needs.</li></ul> <p>Research findings show that patient-centred care improves patient experience, creates value for services and is increasingly recognised as a critical dimension of high-quality health care<sup>2</sup>.</p>
<p>Culturally competent and culturally safe care</p>	<p>The Health Practitioners Competence Assurance Act 2003 requires the Council to set standards of cultural competence for oral health practitioners<sup>3</sup>. This include competencies that will enable effective and respectful interaction with Māori.</p> <p>The Council's Cultural competence practice standard defines cultural competence as “an awareness of cultural diversity and the ability to function effectively and respectfully when working with and treating people of different cultural backgrounds”.</p> <p>Culture includes, but is not restricted to, age or generation; gender; sexual orientation; occupation and socioeconomic status; ethnic origin or migrant experience; religious or spiritual belief; and disability.</p> <p>Cultural safety extends beyond a practitioner's cultural awareness or cultural sensitivity.</p>

<sup>2</sup> Health Navigator New Zealand <https://www.healthnavigator.org.nz/clinicians/p/patient-centred-care/>

<sup>3</sup> Section 118i of the Health Practitioners Competence Assurance Act 2003

	<p>It requires the practitioner to examine themselves and the potential impact of their own culture on clinical interactions and the care they provide.</p> <p>This means the practitioner needs to acknowledge and address their own biases, attitudes, assumptions, stereotypes, prejudices and characteristics, and hold themselves accountable for providing culturally safe care.</p> <p>Key to providing culturally safe care is that the practitioner understands the inherent power imbalance in the practitioner-patient relationship, recognises and respects each patient as an individual, and enables meaningful two-way communication to occur.</p> <p>Cultural safety requires that all people receive oral health care that takes into account their uniqueness. It is the person and/or their community, whānau or family, hapū or iwi receiving the care who determine what culturally safe care means for them.</p> <p>A well-referenced definition of cultural safety is:</p> <p style="padding-left: 40px;">an environment which is spiritually, socially and emotionally safe, as well as physically safe for people; where there is no assault, challenge or denial of their identity, of who they are and what they need. It is about shared respect, shared meaning, shared knowledge and experience, of learning together with dignity, and truly listening<sup>4</sup>.</p> <p>This definition supports the understanding that the relationship between a practitioner and patient is a partnership based on trust and respect, where communication is key in meeting the patient's needs and goals.</p>
Evidence-based practice	<p>Evidence-based practice is the integration of relevant scientific evidence with the practitioner's expertise (clinical, technical, health protection and promotion) and the patient's or community's needs and preferences. Evidence-based practice promotes consistency and optimal outcomes of care.</p> <p>It is fundamental in providing evidence-based care that the practitioner has relevant scientific knowledge, understands scientific method, can evaluate evidence, and works to a robust and contemporary evidence base.</p>

<sup>4</sup> Williams, R. (1999). Cultural safety – what does it mean for our work practice? Australian and New Zealand Journal of Public Health, 23(2), 213-214.

Kupu Māori	
Hangarau	Technology
Hapū	Group, clan, subtribe
Hauora	Health
Hauora ā-waha	Oral health
Hinengaro	Psychological
Iwi	Tribe
Kaiāwhina	Helper
Kawa	Practice, protocols
Kawa whakaruruhau	Cultural safety
Kāwanatanga	Governance
Kupu	Words
Matāuranga	Knowledge, wisdom, understanding
Ngā kaiakatanga	Competencies
Ōritetanga	Equity
Pae ora <sup>5</sup>	<p>Healthy futures - to live with good health and wellbeing in an environment that supports a good quality of life.</p> <ul style="list-style-type: none"> <li>• mauri ora – healthy individuals</li> <li>• whānau ora – healthy families</li> <li>• wai ora – healthy environments.</li> </ul>
Rangahau	Research
Ratonga	Services
Rongoā	Medicine, remedy
Tamariki	The young
Tapu	Sacred
Te Reo	Māori language
Te Taiao	Environmental
te Tiriti	Te Tiriti o Waitangi
Tiaki niho	Dental
Tikanga	Correct procedure, custom or reason/purpose
Tikanga akuaku	Hygiene
Tino Rangatiratanga	Sovereignty
Wairua	Spiritual
Whānau	Extended family, family group
Whanaungatanga	A relationship through shared experiences and working together, providing a sense of belonging

<sup>5</sup> <https://www.health.govt.nz/our-work/populations/maori-health/he-korowai-oranga/pae-ora-healthy-futures>