

Evidence Package

Zinc

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Table 6a: Executive Summary of Therapeutic Indications

Indication identifier	System targeted	Therapeutic indication	Required dosage	Specific/ Non-specific
ZINC 1	General health or body parts	<ul style="list-style-type: none"> • Maintain/support general health and wellbeing • Antioxidant/Reduce free radicals formed in the body • Helps reduce/decrease free radical damage to body cells • Maintain/support body tissue repair/regeneration • Maintain/support eye health • Maintain/support healthy eye function • Maintain/support connective tissue health • Maintain/support healthy growth and development 	8-11 mg	Non-specific
ZINC 2	Gastrointestinal system	<ul style="list-style-type: none"> • Maintain/support smell sensation • Maintain/support taste sensation 	8-11 mg	Non-specific
ZINC 3	Immune system	<ul style="list-style-type: none"> • Maintain/support immune system health • Maintain/support healthy immune system function 	8-11 mg	Non-specific
ZINC 4	Nervous system	<ul style="list-style-type: none"> • Maintain/support nervous system health • Maintain/support nervous system function 	8-11 mg	Non-specific

ZINC 5	Nutrition	<ul style="list-style-type: none"> • Maintain/support (state vitamin/mineral/nutrient [zinc]) levels in the body • Helps prevent dietary (state vitamin/mineral/nutrient [zinc]) deficiency • Aid/assist/helps metabolism of (state vitamin/mineral/nutrient [carbohydrate, protein]) • Aid/assist/helps protein synthesis in the body 	8-11 mg	Non-specific
ZINC 6	Reproductive system	<ul style="list-style-type: none"> • Maintain/support female reproductive system health • Maintain/support healthy reproductive hormones • Maintain/support/regulate healthy menstrual cycle • Maintain/support reproductive system health 	8-11 mg	Non-specific
ZINC 7	Skin	<ul style="list-style-type: none"> • Maintain/support skin health • Maintain/support skin integrity/structure • Maintain/support wound healing in healthy individuals • Maintain/support skin repair/healing/regeneration in healthy individuals 	8-11 mg	Non-specific

Table 6b: Evidence Summary for Scientific Indications

INDICATION 1						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> ● Maintain/support general health and wellbeing ● Antioxidant/Reduce free radicals formed in the body ● Helps reduce/decrease free radical 	Health Canada Monographs , Health Canada, 2023	Zinc	Adults: 8-11 mg	N/A	Helps in connective tissue formation; Helps to maintain healthy skin; Helps maintain healthy skin and connective tissue formation; Helps (to) maintain/support immune function/system; Helps with immune function; Helps in energy metabolism and tissue formation; Helps to maintain healthy bones, hair, nail and/or skin; Maintains healthy hair, skin and nails; Helps to prevent zinc deficiency; Helps to maintain the body's ability to metabolize nutrients.	Primary supporting

<p>damage to body cells</p> <ul style="list-style-type: none"> ● Maintain/support body tissue repair/regeneration ● Maintain/support eye health ● Maintain/support healthy eye function ● Maintain/support connective tissue health ● Maintain/support healthy growth and development 	<p>GlobinMed, Global Information Hub on Integrated Medicine, 2022</p>	<p>Zinc</p>	<p>Adults: 8-11 mg</p>	<p>N/A</p>	<p>Zinc is necessary for the functioning of over 300 different enzymes and, as such, it plays a vital role in an enormous number of biological processes. In humans, the highest concentrations of zinc are found in the liver, pancreas, kidneys, bone, and muscles. Zinc is highly concentrated in parts of the eye, prostate gland, sperm, skin, hair, and nails</p> <p>Functions in the body include:</p> <p>Immune system: Helps regulate a wide variety of immune system activities, including T-lymphocytes, CD4, natural killer cells, and interleukin II.</p> <p>Antioxidant: Cofactor for the antioxidant enzyme Zn/Cu superoxide dismutase.</p> <p>Wound Healing Facilitates wound healing, especially in burns, surgical, and other types of scars</p> <p>Sexual function</p>	<p>Primary supporting</p>
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					<p>Zinc is necessary for the maturation of sperm, for ovulation, and for fertilization.</p> <p>Sensory perceptions Involved in sensory perceptions of taste, smell and vision. Necessary for salt-taste perception, dark adaptation, and night vision</p> <p>Serum vitamin A levels Controls the release of stored vitamin A from the liver.</p> <p>Insulin activity Is a component of insulin and recently was discovered to be a regulator of insulin activity.</p> <p>Thyroid Promotes the conversion of thyroxine to triiodothyronine.</p>	
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	U.S. Department of Health and Human Services. (2022). Retrieved from National Institute of Health Office of Dietary Supplement s website	Zinc	Adults: 8-11 mg	N/A	Zinc is involved in numerous aspects of cellular metabolism. It is required for the catalytic activity of approximately 100 enzymes and it plays a role in immune function, protein synthesis, wound healing, DNA synthesis, and cell division. Zinc also supports normal growth and development during pregnancy, childhood, and adolescence and is required for proper sense of taste and smell. Zinc deficiency is characterized by growth retardation, loss of appetite, and impaired immune function. In more severe cases, zinc deficiency causes hair loss, diarrhea, delayed sexual maturation, impotence, hypogonadism in males, and eye and skin lesions. Weight loss, delayed healing of wounds, taste abnormalities, and mental lethargy can also occur. Zinc nutritional status is difficult to measure adequately using laboratory tests due to its distribution throughout the body as a component of various proteins and nucleic acids. Plasma or serum zinc levels are the most commonly used indices for evaluating zinc deficiency,	Primary supporting
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					<p>but these levels do not necessarily reflect cellular zinc status due to tight homeostatic control mechanisms. Clinical effects of zinc deficiency can be present in the absence of abnormal laboratory indice. Clinicians consider risk factors (such as inadequate caloric intake, alcoholism, and digestive diseases) and symptoms of zinc deficiency (such as impaired growth in infants and children) when determining the need for zinc supplementation.</p> <p>Zinc and Health</p> <p>Immune function Severe zinc deficiency depresses immune function and even mild to moderate degrees of zinc deficiency can impair macrophage and neutrophil functions, natural killer cell activity, and complement activity. The body requires zinc to develop and activate T-lymphocytes.</p> <p>Wound healing Zinc helps maintain the integrity of skin and mucosal membranes</p>	
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					<p>Age-related macular degeneration Researchers have suggested that both zinc and antioxidants delay the progression of age-related macular degeneration (AMD) and vision loss, possibly by preventing cellular damage in the retina</p>	
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	<p>Braun, L., & Cohen, M. (2015). Zinc. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1197-1223). Chatswood, NSW: Elsevier Australia.</p>	Zinc	<p>Males >18 years: 14 mg/day</p> <p>Females >18 years: 8 mg/day.</p>	N/A	<p>Zinc belongs to the class of type II nutrients which are considered the cellular building blocks and therefore zinc, together with the other type II nutrients (essential amino acids, magnesium, potassium, phosphorus, protein and sulfur), is required for the synthesis of any new tissue. They are not stored by the body and are under tight physiological control.</p> <p>Main actions: Cofactor in many biochemical reactions In humans, zinc metalloenzymes outnumber all the other trace mineral-dependent enzymes combined, with between 70 and 200 present in humans. Consequently, zinc is involved in myriad chemical reactions that are important for normal body functioning, such as carbohydrate metabolism, protein and DNA synthesis, protein digestion, bone metabolism and endogenous antioxidant systems.</p> <p>Growth and development zinc is essential for the formation of biomembranes and zinc finger</p>	Primary supporting
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					<p>motifs found in DNA transcription factors and, belonging to the type II nutrient class, is required for the building of all new tissues. Several studies of children with growth retardation and zinc deficiency have confirmed that repletion leads to increased levels and activity of growth hormone and insulin-like growth factor and insulin-like growth factor-binding proteins</p> <p>Normal immune responses Zinc is involved in many aspects of immunological function. It is essential for the normal development and function of cells, for mediating non-specific immunity such as neutrophils, monocytes and natural killer cells and affecting the development of acquired immunity and T-lymphocyte function.</p> <p>Neurological function Central nervous system zinc is found predominantly in the brain, specifically the hippocampus, amygdala and cortex, where it possesses both</p>	
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					<p>catalytic and regulatory roles. Fertility Zinc is important for both male and female fertility. Zinc in humans is necessary for the formation and maturation of spermatozoa, for ovulation and for fertilisation</p> <p>Pregnancy and lactation Zinc is recognised as being a key nutrient during embryogenesis, fetal growth and development.</p> <p>Antioxidant Zinc contributes to the structure of the antioxidant enzyme extracellular SOD, restricts endogenous free radical production, is a scavenger of free radicals.</p> <p>Supporting glycaemic control Zinc pancreatic concentrations are very high, negatively impacted by deficiency and, not surprisingly, zinc possesses multiple related roles, including the processing, storage, secretion and action of insulin in β cells. Furthermore, zinc is necessary for activity of several gluconeogenic enzymes,</p>	
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					<p>including phosphoenolpyruvate carboxykinase, making zinc central in glucose metabolism regulation</p> <p>Wound healing Zinc is an essential cofactor in both wound healing and immune function.</p>	
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	Gaby, A. (2017). Zinc. In <i>Nutritional Medicine</i> (2nd ed., pp. 160-67). Concord, NH: Fritz Perlberg Publishing.	Zinc	Adults: 8-11 mg	N/A	Zinc is a cofactor for numerous metalloenzymes and is involved in many biochemical pathways, including DNA and protein synthesis. It is essential for growth and plays a role in visual function, hearing, taste sensation, spermatogenesis, sexual development, immune function, and wound healing. Zinc also functions as an antioxidant, helps stabilize cell membranes, has an anti-inflammatory effect, and has antiviral activity against some viruses (e.g., rhinovirus and herpes simplex virus). In most studies of healthy adolescents and adults of various ages consuming Western diets, mean zinc intake ranged from 7.3–10.4 mg/day. Considering that the zinc intake of about half of the subjects in these studies was below the mean, these findings indicate that a substantial proportion of the population is failing to meet the RDA for zinc	Primary supporting
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	Therapeutic Research Center. (2024). Zinc. Retrieved from Natural Medicines website	Zinc	Adults: 8-11 mg	N/A	Zinc is a biologically essential trace element and is the second most abundant trace element in the body. It is a cofactor in many biological processes including DNA, RNA, and protein synthesis. Zinc also plays a role in immune function, wound healing, reproduction, growth and development, behavior and learning, taste and smell, blood clotting, thyroid hormone function, and insulin action. About 300 enzymes depend on zinc as a catalyst. Zinc is also required in hepatic synthesis of retinol binding protein, the transport protein of vitamin A. Zinc deficiency is characterized by growth retardation, low insulin levels, reduced levels of insulin-like growth factor (IGF)-1, anorexia, mental lethargy, irritability, low sperm count, generalized hair loss, rough and dry skin, skin lesions, slow wound healing, decreased thyroid function, delayed onset of puberty, poor sense of smell and taste, diarrhea, and nausea. In the human brain, zinc is believed to play a role in the hippocampus in communication between neurons. Zinc has been	Primary supporting
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					<p>shown to decrease blood glucose and increase insulin levels in human studies. Clinical research suggests that zinc has beneficial effects on the skin when used orally or topically. For example oral zinc can improve acne due to its anti-inflammatory activity. Also, taking oral zinc seems to decrease skin sebum secretion, which might benefit acne patients.</p> <p>Male fertility appears to be influenced by zinc. Zinc is important for neutrophil, natural killer cell, and T-lymphocyte function. Even mild zinc deficiency might adversely affect T-cell functions. Zinc plays a key role in the maintenance of vision. It is present in high concentrations in the eye, particularly in the retina and choroid. Zinc deficiency can alter vision, and severe deficiency causes changes in the retina and retinal pigment epithelium (RPE). Zinc interacts with taurine and vitamin A in the retina, modifies plasma membranes in the photoreceptors, regulates the</p>	
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					light-rhodopsin reaction within the photoreceptor, modulates synaptic transmission, and serves as an antioxidant in both the RPE and retina. It seems to slow the progression of some degenerative retinal diseases	
	Association of Naturopathic Practitioners . (2022). Zinc. Retrieved from: Herb Drug Nutrient.	Zinc	Adults: 8-14 mg	N/A	Zinc is necessary for the function of a large number of metalloenzymes, including alcohol dehydrogenase, alkaline phosphatase, carbonic anhydrase, leucine aminopeptidase, superoxide dismutase, antioxidant enzymes – and hormones including glucagon, insulin, growth hormone and sex hormones. Zinc is essential for proper immune function and for the integrity of connective tissue and cell membranes. Indication Notes: Treatment of zinc deficiency, including poor immunity, wound healing and acne.	Primary supporting

	Linus Pauling Institute. (2022). Zinc. Retrieved from: Micronutrient Information Center	Zinc	Adults: 8-11 mg	N/A	Zinc plays important roles in growth and development, immune function, neurotransmission, vision, reproduction. Significant delays in linear growth and weight gain, known as growth retardation or failure to thrive, are common features of mild zinc deficiency in children. Adequate zinc intake is essential in maintaining the integrity of the immune system, specifically for normal development and function of cells that mediate both innate (neutrophils, macrophages, and natural killer cells) and adaptive (B-lymphocytes and T-lymphocytes) immune responses	Primary supporting
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INDICATION 2						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> ● Maintain/support smell sensation ● Maintain/support taste sensation 	GlobinMed, Global Information Hub on Integrated Medicine, 2022	Zinc	Adults: 8-11 mg	N/A	Functions in the body include: Sensory perceptions Involved in sensory perceptions of taste, smell and vision. Necessary for salt-taste perception.	Primary supporting

	U.S. Department of Health and Human Services. (2022). Retrieved from National Institute of Health Office of Dietary Supplement s website	Zinc	Adults: 8-11 mg	N/A	Zinc ...is required for proper sense of taste and smell. Zinc deficiency is characterized by loss of appetite, and impaired immune function. ..., taste abnormalities... can also occur.	Primary supporting
	Gaby, A. (2017). Zinc. In <i>Nutritional Medicine</i> (2nd ed., pp. 160-67). Concord, NH: Fritz Perlberg Publishing.	Zinc	Adults: 8-11 mg	N/A	Zinc is essential for taste sensation.	Primary supporting

	Therapeutic Research Center. (2024). Zinc. Retrieved from Natural Medicines website	Zinc	Adults: 8-11 mg	N/A	Zinc also plays a role in taste and smell. Zinc deficiency is characterized bypoor sense of smell and taste.	Primary supporting
	Association of Naturopathic Practitioners . (2022). Zinc. Retrieved from: Herb Drug Nutrient.	Zinc	Adults: 8-14 mg	N/A	Zinc is necessary for the function of a large number of metalloenzymes, including alcohol dehydrogenase, alkaline phosphatase, carbonic anhydrase, leucine aminopeptidase, superoxide dismutase, antioxidant enzymes – and hormones including glucagon, insulin, growth hormone and sex hormones. Zinc is essential for proper immune function and for the integrity of connective tissue and cell membranes.	Primary supporting

INDICATION 3

Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> ● Maintain/support immune system health ● Maintain/support healthy immune system function 	Health Canada Monographs , Health Canada, 20 23	Zinc	Adults: 8-11 mg	N/A	Helps (to) maintain/support immune function/system; Helps with immune function;	Primary supporting
	GlobinMed, Global Information Hub on Integrated Medicine, 2022	Zinc	Adults: 8-11 mg	N/A	Functions in the body include: Immune system: Helps regulate a wide variety of immune system activities, including T-lymphocytes, CD4, natural killer cells, and interleukin II.	Primary supporting

	U.S. Department of Health and Human Services. (2022). Retrieved from National Institute of Health Office of Dietary Supplements website	Zinc	Adults: 8-11 mg	N/A	Zinc plays a role in immune function. Zinc deficiency is characterized by immune function. Zinc and Health Immune function Severe zinc deficiency depresses immune function and even mild to moderate degrees of zinc deficiency can impair macrophage and neutrophil functions, natural killer cell activity, and complement activity. The body requires zinc to develop and activate T-lymphocytes.	Primary supporting
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	Braun, L., & Cohen, M. (2015). Zinc. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1197-1223). Chatswood, NSW: Elsevier Australia.	Zinc	Males >18 years: 14 mg/day Females >18 years: 8 mg/day.	N/A	Main actions: Normal immune responses Zinc is involved in many aspects of immunological function. It is essential for the normal development and function of cells, for mediating non-specific immunity such as neutrophils, monocytes and natural killer cells and affecting the development of acquired immunity and T-lymphocyte function.	Primary supporting
	Gaby, A. (2017). Zinc. In <i>Nutritional Medicine</i> (2nd ed., pp. 160-67). Concord, NH: Fritz Perlberg Publishing.	Zinc	Adults: 8-11 mg	N/A	Zinc plays a role in immune function.	Primary supporting

	Therapeutic Research Center. (2024). Zinc. Retrieved from Natural Medicines website	Zinc	Adults: 8-11 mg	N/A	Zinc also plays a role in immune function. Zinc is important for neutrophil, natural killer cell, and T-lymphocyte function. Even mild zinc deficiency might adversely affect T-cell functions.	Primary supporting
	Association of Naturopathic Practitioners . (2022). Zinc. Retrieved from: Herb Drug Nutrient.	Zinc	Adults: 8-14 mg	N/A	Zinc is essential for proper immune function Indication Notes: poor immunity	Primary supporting

	Linus Pauling Institute. (2022). Zinc. Retrieved from: Micronutrient Information Center	Zinc	Adults: 8-11 mg	N/A	Zinc plays important roles in immune function. Adequate zinc intake is essential in maintaining the integrity of the immune system, specifically for normal development and function of cells that mediate both innate (neutrophils, macrophages, and natural killer cells) and adaptive (B-lymphocytes and T-lymphocytes) immune responses	Primary supporting
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INDICATION 4						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> ● Maintain/support nervous system health ● Maintain/support nervous system function 	Braun, L., & Cohen, M. (2015). Zinc. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1197-1223). Chatswood, NSW: Elsevier Australia.	Zinc	<p>Males >18 years: 14 mg/day</p> <p>Females >18 years: 8 mg/day.</p>	N/A	Central nervous system zinc is found predominantly in the brain, specifically the hippocampus, amygdala and cortex, where it possesses both catalytic and regulatory roles.	Primary supporting

	Therapeutic Research Center. (2024). Zinc. Retrieved from Natural Medicines website	Zinc	Adults: 8-11 mg	N/A	in the human brain, zinc is believed to play a role in the hippocampus in communication between neurons. Zinc modulates synaptic transmission.	Primary supporting
	Linus Pauling Institute. (2022). Zinc. Retrieved from: Micronutrient Information Center	Zinc	Adults: 8-11 mg	N/A	Zinc has been found to influence nerve impulse transmission.	Primary supporting

INDICATION 5						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> Maintain/support (state vitamin/mineral/nutrient [zinc]) levels in the body 	Health Canada Monographs , Health Canada, 2023	Zinc	Adults: 8-11 mg	N/A	Helps in energy metabolism and tissue formation; Helps to prevent zinc deficiency; Helps to maintain the body's ability to metabolize nutrients.	Primary supporting

<ul style="list-style-type: none"> ● Helps prevent dietary (state vitamin/mineral/nutrient [zinc]) deficiency ● Aid/assist/helps metabolism of (state vitamin/mineral/nutrient [carbohydrate, protein]) ● Aid/assist/helps protein synthesis in the body 	<p>GlobinMed, Global Information Hub on Integrated Medicine, 2022</p>	Zinc	Adults: 8-11 mg	N/A	<p>Functions in the body include: Controls the release of stored vitamin A from the liver.</p>	Primary supporting
	<p>U.S. Department of Health and Human Services. (2022). Retrieved from National Institute of Health Office of Dietary Supplements website</p>	Zinc	Adults: 8-11 mg	N/A	<p>Zinc is involved in numerous aspects of cellular metabolism. It is required for the catalytic activity of approximately 100 enzymes and it plays a role in protein synthesis,</p>	Primary supporting

	<p>Braun, L., & Cohen, M. (2015). Zinc. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1197-1223). Chatswood, NSW: Elsevier Australia.</p>	Zinc	<p>Males >18 years: 14 mg/day</p> <p>Females >18 years: 8 mg/day.</p>	N/A	<p>Zinc belongs to the class of type II nutrients which are considered the cellular building blocks and therefore zinc, together with the other type II nutrients (essential amino acids, magnesium, potassium, phosphorus, protein and sulfur), is required for the synthesis of any new tissue.</p> <p>Main actions: Cofactor in many biochemical reactions</p> <p>In humans, zinc metalloenzymes outnumber all the other trace mineral-dependent enzymes combined, with between 70 and 200 present in humans. Consequently, zinc is involved in myriad chemical reactions that are important for normal body functioning, such as carbohydrate metabolism, protein and DNA synthesis, protein digestion.</p> <p>Furthermore, zinc is necessary for activity of several gluconeogenic enzymes, including phosphoenolpyruvate carboxykinase, making zinc central in glucose metabolism regulation</p>	Primary supporting
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	Gaby, A. (2017). Zinc. In <i>Nutritional Medicine</i> (2nd ed., pp. 160-67). Concord, NH: Fritz Perlberg Publishing.	Zinc	Adults: 8-11 mg	N/A	Zinc is a cofactor for numerous metalloenzymes and is involved in many biochemical pathways, including DNA and protein synthesis. It is essential for growth	Primary supporting
	Therapeutic Research Center. (2024). Zinc. Retrieved from Natural Medicines website	Zinc	Adults: 8-11 mg	N/A	Zinc is a cofactor in many biological processes including DNA, RNA, and protein synthesis. About 300 enzymes depend on zinc as a catalyst. Zinc has been shown to decrease blood glucose and increase insulin levels in human studies.	Primary supporting

INDICATION 6

Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence
		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> ● Maintain/support female reproductive system health ● Maintain/support healthy reproductive hormones ● Maintain/support/regulate healthy 	Health Canada Monographs , Health Canada, 2023	Zinc	Adults: 8-11 mg	N/A	<p>Helps in connective tissue formation; Helps to maintain healthy skin; Helps maintain healthy skin and connective tissue formation; Helps (to) maintain/support immune function/system; Helps with immune function; Helps in energy metabolism and tissue formation; Helps to maintain healthy bones, hair, nail and/or skin; Maintains healthy hair, skin and nails; Helps to prevent zinc deficiency; Helps to maintain the body's ability to metabolize nutrients.</p>	Primary supporting

<p>menstrual cycle</p> <ul style="list-style-type: none"> Maintain/support reproductive system health 	<p>GlobinMed, Global Information Hub on Integrated Medicine, 2022</p>	Zinc	Adults: 8-11 mg	N/A	<p>Zinc is highly concentrated in the prostate gland, sperm.</p> <p>Functions in the body include: Sexual Function Zinc is necessary for the maturation of sperm, for ovulation, and for fertilization.</p>	Primary supporting
	<p>Braun, L., & Cohen, M. (2015). Zinc. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1197-1223). Chatswood, NSW: Elsevier Australia.</p>	Zinc	<p>Males >18 years: 14 mg/day</p> <p>Females >18 years: 8 mg/day.</p>	N/A	<p>Fertility</p> <p>Zinc is important for both male and female fertility. Zinc in humans is necessary for the formation and maturation of spermatozoa, for ovulation and for fertilisation</p> <p>Pregnancy and lactation Zinc is recognised as being a key nutrient during embryogenesis, fetal growth and development.</p>	Primary supporting

	Gaby, A. (2017). Zinc. In <i>Nutritional Medicine</i> (2nd ed., pp. 160-67). Concord, NH: Fritz Perlberg Publishing.	Zinc	Adults: 8-11 mg	N/A	Zinc is essential for growth and plays a role in spermatogenesis, sexual development	Primary supporting
	Therapeutic Research Center. (2024). Zinc. Retrieved from Natural Medicines website	Zinc	Adults: 8-11 mg	N/A	Zinc also plays a role in reproduction. Zinc deficiency is characterized by low sperm count. Male fertility appears to be influenced by zinc.	Primary supporting

	Association of Naturopathic Practitioners (2022). Zinc. Retrieved from: Herb Drug Nutrient.	Zinc	Adults: 8-14 mg	N/A	Zinc is necessary for hormones including growth hormone and sex hormones.	Primary supporting
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INDICATION 7						
Indication	Evidence reference details	Ingredient	Dosage	Patient population	Summary of findings	Balance of evidence

		Plant/animal part and preparation	Daily dosage, frequency & method	Subject, characteristics, health condition, ages, gender, ethnicity	Include enough information to demonstrate relevance and study outcomes. Any justifications from table 4d of Checklist 4 should be included here.	'Primary supporting', 'Secondary supporting'
<ul style="list-style-type: none"> ● Maintain/support skin health ● Maintain/support skin integrity/structure ● Maintain/support wound healing in healthy individuals ● Maintain/support skin repair/healing/regeneration in 	Health Canada Monographs , Health Canada, 2023	Zinc	Adults: 8-11 mg	N/A	Helps in connective tissue formation; Helps to maintain healthy skin; Helps maintain healthy skin and connective tissue formation; Helps (to) maintain/support immune function/system; Helps to maintain healthy bones, hair, nail and/or skin; Maintains healthy hair, skin and nails;	Primary supporting
	GlobinMed, Global Information Hub on Integrated Medicine, 2022	Zinc	Adults: 8-11 mg	N/A	Zinc is highly concentrated in skin, hair, and nails Functions in the body: Wound healing Facilitates wound healing, especially in burns, surgical, and other types of scars	Primary supporting

<p>healthy individuals</p>	<p>U.S. Department of Health and Human Services. (2022). Retrieved from National Institute of Health Office of Dietary Supplements website</p>	<p>Zinc</p>	<p>Adults: 8-11 mg</p>	<p>N/A</p>	<p>Zinc is required for the catalytic activity of approximately 100 enzymes and it plays a role in, wound healing.</p> <p>Zinc and Health Wound healing Zinc helps maintain the integrity of skin and mucosal membranes</p>	<p>Primary supporting</p>
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	<p>Braun, L., & Cohen, M. (2015). Zinc. In <i>Herbs & Natural Supplements. An evidence-based guide</i> (4th ed., pp. 1197-1223). Chatswood, NSW: Elsevier Australia.</p>	Zinc	<p>Males >18 years: 14 mg/day</p> <p>Females >18 years: 8 mg/day.</p>	N/A	<p>Zinc belongs to the class of type II nutrients which are considered the cellular building blocks and therefore zinc, together with the other type II nutrients (essential amino acids, magnesium, potassium, phosphorus, protein and sulfur), is required for the synthesis of any new tissue. They are not stored by the body and are under tight physiological control.</p> <p>Main actions:</p> <p>Growth and development zinc is essential for the formation of biomembranes and zinc finger motifs found in DNA transcription factors and, belonging to the type II nutrient class, is required for the building of all new tissues.</p> <p>Wound healing Zinc is an essential cofactor in wound healing</p>	Primary supporting
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	Therapeutic Research Center. (2024). Zinc. Retrieved from Natural Medicines website	Zinc	Adults: 8-11 mg	N/A	Zinc also plays a role in wound healing. Clinical research suggests that zinc has beneficial effects on the skin when used orally or topically. For example oral zinc can improve acne due to its anti-inflammatory activity. Also, taking oral zinc seems to decrease skin sebum secretion, which might benefit acne patients.	Primary supporting
	Association of Naturopathic Practitioners . (2022). Zinc. Retrieved from: Herb Drug Nutrient.	Zinc	Adults: 8-14 mg	N/A	Zinc is essential for proper immune function and for the integrity of connective tissue and cell membranes. Indication Notes: Treatment of zinc deficiency, including poor wound healing and acne.	Primary supporting