

## Forth Lecture

### 4. Prefixes

#### *Summary of previous lectures*

*In the previous lectures we talked about the basic elements of the medical word: word root, combining form, suffix, and prefix. The meaning of a word is determined by how these elements are combined. Detailed information about suffixes is mentioned. Suffix linking and suffix types are explained in detail and many examples related to the surgical, diagnostic and pathological suffixes are also provided. In addition, grammatical and plural suffixes are mentioned.*

#### 4.1. Introduction

In “Suffixes” and “Suffixes (Cont’d)”, we explained suffix linking and suffix types. In addition, many examples related to the surgical, diagnostic and pathological suffixes are provided. In this lecture, detailed information about prefixes is mentioned. Prefix linking and prefix types are explained in detail and many examples related to different types of prefixes are provided.

#### 4.2. Prefix linking<sup>59</sup>

Most medical words contain a root or combining form with a suffix. Some of them also contain prefixes. A prefix is a word element located at the beginning of a word. Substituting one prefix for another alters the meaning of the word. For example, in the term macro/cyte, macro- is a prefix meaning large; -cyte is a suffix meaning cell. A macrocyte is a large cell. By changing the prefix macro- to micro- (small), the meaning of the word changes. A microcyte<sup>60</sup> is a small cell. See [Table 4-1](#) for three other examples of how a prefix changes the meaning of a word.

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<sup>59</sup> Medical Terminology Systems - A Body Systems Approach: Prefixes – Prefix linking p. 30

<sup>60</sup> The suffix -cyte can also be broken down as a root cyt which a noun ending e (cyt/e)

Table 4-1: Examples of changing prefixes and meanings: each word has the same root but by substituting different prefixes, new words with different meanings are formed

Prefix + Word Root + Suffix =	Word (Arabic <sup>61</sup> )	Pronunciation <sup>62</sup>	Meaning
pre- + nat + -al = (before) (birth) (pertaining to)	prenatal (سَابِقٌ لِلوَلَادَةِ)	ˌpri:ˈneɪtl	pertaining to (the period) before birth
peri + nat + -al = (around) (birth) (pertaining to)	perinatal (الْفَتْرَةُ الْمُحِيطَةُ بِالوَلَادَةِ)	ˌperiˈneɪtl	pertaining to (the period) around birth
post + nat + -al = (after) (birth) (pertaining to)	postnatal (تَالٍ لِلوَلَادَةِ)	ˌpəʊstˈneɪtl	pertaining to (the period) after birth

### 4.3. Prefix types

Learning the major types of prefixes, such as prefixes of position, number and measurement, and direction, as well as some others, will help you master medical terminology.

#### 4.3.1. Prefixes of position, number and measurement, and direction

Prefixes are used in medical terms to denote position, number and measurement, and direction. Prefixes of position describe a place or location. (See [Table 4-2](#)). Prefixes of number and measurement describe an amount, size, or degree of involvement. (See

[Table 4-3](#)). Prefixes of direction indicate a pathway or route. (See [Table 5-1](#) (next lecture)).

Table 4-2: Examples of commonly used prefixes of position along with their meanings and word analyses

Prefix (Meaning)	Word (Arabic)	Pronunciation	Analysis
epi- (above, upon)	epi/gastr/ic (شُرَّسُوفِي)	ˌepɪˈgæstrɪk	pertaining to above the stomach gastr: stomach -ic: pertaining to
hypo- (under, below, deficient)	hypo/derm/ic (تَحْتَ الْجَدِّ)	ˌhaɪpəˈdɜ:mɪk	pertaining to under the skin derm: skin -ic: pertaining to Hypodermic injections are given under the skin.

<sup>61</sup> <http://www.emro.who.int/Unified-Medical-Dictionary.html>

<sup>62</sup> Oxford Advanced Learner's Dictionary, 8<sup>th</sup> ed. or: <http://dictionary.reference.com/>

infra- (under, below)	infra/cost/al (تَحْتَ الأضلاع)	ˌɪnfɹəˈkɒstl	below the ribs cost: ribs -al: pertaining to
sub-	sub/nas/al (تَحْتَ الأنف)	ˌsʌbˈneɪzl	under the nose nas: nose -al: pertaining to
inter- (between)	inter/cost/al (بَيْنَ الأضلاع)	ˌɪntəˈkɒstl	between the ribs cost: ribs -al: pertaining to
post- (after, behind)	post/nat/al (تَالِ للوَلَادَةِ)	ˌpəʊstˈneɪtl	pertaining to (the period) after birth nat: birth -al: pertaining to
pre- (before, in front of)	pre/nat/al (سَابِقِ للوَلَادَةِ)	ˌpriːˈneɪtl	pertaining to (the period) before birth nat: birth -al: pertaining to
pro-	pro/gnosis (المَال)	ˌprɒɡˈnəʊsɪs	knowing before -gnosis: knowing Prognosis is the prediction of the course and end of a disease and the estimated chance of recovery.
retro- (backward, behind)	retro/version (اِنْقِلَابٌ خَلْفِي)	ˌreɪtrəʊˈvɜːʒn	turning backwards -version: turning Retroversion refers to tipping <sup>63</sup> backward of an organ (such as the uterus <sup>64</sup> ) from its normal position.

Table 4-3: Examples of commonly used prefixes of number and measurement along with their meanings and word analyses

Prefix (Meaning)	Word (Arabic)	Pronunciation	Analysis
bi- (two)	bi/later/al (ثَنَائِي الجَانِبِ)	bɑɪlætərəl	pertaining to two sides later: side -al: pertaining to
dipl- (double)	dipl/opia (شَفَعِ (أَزْدِوَاغُ الرُّوْيَةِ))	dɪˈpləʊpiə	double vision -opia: vision
diplo-	diplo/bacteri/al (مَتَعَلِقِ بِالبِكْتِيرِيَا (المزدوجة))	dɪˈpləʊbæktɪəriəl	bacteria linked together in pairs bacteri: bacteria -al: pertaining to Diplobacteria reproduce in such a manner that they are joined together in pairs.

<sup>63</sup> Tip: /tɪp/ to move so that one end or side is higher than the other; to move sth into this position

<sup>64</sup> Uterus: /ˈjuːtərəs/ the organ in women and female animals in which babies develop before they are born (womb /wu:m/)

hemi- (one half)	hemi/plegia (شَلَلٌ نِصْفِيٌّ)	ˌhɛmɪˈpli:dʒiə	paralysis of one half of the body -plegia: paralysis
hyper- (excessive, above normal)	hyper/calc/emia (فَرْطُ كَالْسِيُومِ الدَّمِ)	ˌhaɪpərkælˈsi:miə	excessive calcium in the blood calc: calcium -emia: blood condition
macro- (large)	macro/cyte (كُرَيَّةٌ حَمْرَاءُ كِبْرَوِيَّةٌ)	ˈmækrəʊˌsaɪt	large red blood cell -cyte: cell
micro- (small)	micro/scope (مِجْهَرٌ)	maɪkrəskəʊp	instrument for examining small (objects) -scope: instrument for examining The microscope is an optical instrument that greatly magnifies minute objects.
mono- (one)	mono/therapy (مُعَالَجَةٌ أَحَادِيَّةُ الدَّوَاءِ)	ˌmɒnəˈθerəpi	one treatment -therapy: treatment An example of monotherapy is treatment using only a single drug or a single treatment modality.
uni-	uni/nucle/ar (وَحِيدُ النَّوَاةِ)	ˌju:nɪˈnju:kliə(r)	pertaining to one nucleus nucle: nucleus -ar: pertaining to
multi- (many, much)	multi/gravida (مُتَكَرِّرَةُ الحَمْلِ)	ˌmʌltɪˈgrævidə	woman who has been pregnant more than once -gravida: pregnant woman
poly-	poly/phobia (رُهَابٌ مُتَعَدِّدٌ)	pəˈliːˈfəʊbiə	fear of many things -phobia: fear
primi- (first)	primi/gravida (أَخْرُوسٌ)	ˌpraɪmɪˈgrævidə	woman during her first pregnancy -gravida: pregnant woman
quadri- (four)	quadri/plegia (شَلَلٌ رُبَاعِيٌّ)	ˌkwɒdrɪˈpli:dʒə	paralysis of four limbs -plegia: paralysis
tri- (three)	tri/ceps (ثَلَاثِيَّةُ الرُّؤُوسِ)	ˈtraɪseps	three heads -ceps: head Triceps describes a muscle arising by three heads with a single insertion, as the triceps brachii <sup>65</sup> of the posterior arm.

<sup>65</sup> Triceps brachii: /ˈtraɪseps ˈbrækiə/ the large muscle at the back of the top part of the arm