

# FIVE-LETTER INTERNAL PALINDROMES

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Most **Word Ways** readers are attuned to letter-patterns. One of the most commonly-encountered ones is the internal palindrome, as in REVERse or diVISIVe. For years I have been collecting words with internal palindromes of five or more letters. I sent the editor a type-collection of 336 five-letter examples, from mACACA to piZ-ZAZZ; he added over one hundred more from a perusal of Jack Levine's lists of pattern words, and solicited the help of Dana Richards in searching the Air Force list of Webster's Second by computer. The combined list contains nearly 600 different examples, and is presented on the following pages. In the interest of brevity only one example for each pattern is given, and words not found in either Webster's Second or Third Editions are tagged according to the following codes:

- D Dorland's Illustrated Medical Dictionary, 23rd Edition, 1960
- OE The Oxford English Dictionary, 1928
- OS The Official Scrabble Players Dictionary, 1978
- NW N.H. and S.K. Mager, The Morrow Book of New Words, 1982
- RD Reader's Digest Great World Atlas, 1963

In addition, I noted five internal palindromes not in any dictionary: TOYOTa; pROWORk (p. 67, US News & World Report, Sep 3, 1984); cHOCOHOlic (p. 683, National Geographic Magazine, Nov 1984); auTOBOT (any of a collection of toys that convert from one form to another); Senator LAXALt.

Words that are strict palindromes (such as SAGAS and SOHOS) are not included, nor are five-letter interior palindromes that are only found embedded in longer internal palindromes (caLC1CLase, koLOKOLo). Six-letter and longer internal palindromes have been listed in a February 1974 **Word Ways** article entitled "Palindromic Letter-Sequences" by Leslie Card and A. Ross Eckler, with additions in the November 1986 Colloquy.

I discovered only one word with two non-overlapping internal palindromes of five letters: CAPAC1TATlon. Can readers locate any others?

ABIBA	anabibazon	ARARA	Carara
ACACA	Macaca	ARBRA	Charbray
ACECA	acecaffine	ARCRA	starcraft
ACICA	Acrothoracica	ARDRA	guardrail
ACKCA	blackcap	ARFRA	wharfrae
ACOCA	acocantherin	ARGRA	margrave
ACUCA	macuca	ARIRA	Sharira
ADADA	hadada	ARMRA	armrack
ADIDA	Aradidae	ARORA	Tuscarora
ADYDA	bradydactylia	ARTRA	Bartram
AEAEA	Aeaeon	ARURA	Yarura
AECEA	Phalaecean	ATATA	Batata
AEDEA	aedeagus	ATHTA	breathtaking
AEGEA	Aegean	ATITA	Ratitae
AEHEA	braehead	ATOTA	pneumatotactic
AENEA	aenean	ATSTA	hatstand
AGAGA	Fatagaga	ATUTA	statutable
AGOGA	pedagogal	AUQUA	Chautauqua
AHKHA	tahkhana	AWBWA	sawbwa
AHTHA	drahthaar	AWKWA	awkward
AIAIA	aiaiai	AWLWA	crawlawy
AIGIA	Shaigia	AWNWA	dawnward
AIKIA	Havaikian	BACAB	bacaba
AILIA	bailiage	BALAB	balabos
AIMIA	daimiate	BANAB	banaba
AINIA	Cainian	BARAB	sbarabora
AIRIA	hetairia	BATAB	abatable
ALSIA	Rabelaisian	BEDEB	bedebt
AITIA	Haitian	BILIB	impartibilibly
AJAJA	ajajas	BIRIB	biriba
AKAKA	Takaka	BITIB	Abitibi
ALALA	balalaika	BMEMB	submember
ALCLA	alclad	BOROB	Borobudur RD
ALFLA	halflang	CABAC	caback
ALILA	palila	CADAC	Cycadaceae
ALKLA	Falkland	CAEAC	Circaeaceae
ALOLA	maloactive	CAMAC	camaca
ALPLA	malplaced	CANAC	acanaceous
ALULA	alular	CAPAC	capacity
AMAMA	Cocamama	CARAC	caracole
AMEMA	frameman	CATAC	catacomb
AMOMA	amomaI	CCACC	beccaccia OE
AMPMA	campmaster	CECEC	cecectomy
AMSMA	teamsman	CENEC	scenecraft
AMTMA	amtman	CEREC	cerecloth
ANANA	banana	CIDIC	acidic
ANDNA	sandnatter	CIFIC	specific
ANGNA	hangnail	CILIC	cilice
ANINA	Phasianinae	CIMIC	cimicide
ANONA	anonang	CINIC	acinic
ANSNA	transnatation	CIPIC	precipice
APAPA	whakapapa		

CITIC	anthracitic	EIFIE	deifier
CIVIC	civics	ELKIE	geikielite
COCOC	Sarcococca	EINIE	Heinie
COLOC	colocentesis	EIRIE	feirie
CONOC	iconoclast	EITIE	omneities
COROC	corocleisis	ELALE	Melaleuca
COSOC	ethicosocial	ELDLE	shieldless
COXOC	coxocerite	ELELE	ukelele
CUDUC	acuductor	ELMLE	helmless
CURUC	curucuru	ELOLE	teloecithal
DABAD	Ahmadabad RD	ELPLE	helpless
DDADD	granddaddy	ELTLE	peltless
DEAED	ideaed	ELYLE	undelylene
DEBED	bridebed	EMAME	hemameba
DECED	decedent	EMEME	sememe
DEFED	defedation	EMIME	semimetal
DELED	yodeled	EMOME	anemometer
DEMED	bediademed	ENANE	cisrhenane
DENED	gardened	ENDNE	hendness
DERED	ordered	ENENE	obsceneness
DESED	chaldesed	ENGNE	engnessang
DEWED	mildewed	ENINE	adenine
DEXED	indexed	ENONE	rotenone
DICID	Demodicidae	ENTNE	centner
DIDID	Dididae	EOROE	stereoroentgenogram
DILID	Crocodilidae	EPAPE	bepaper
DIMID	dimidiate	EPIPE	drivepipe
DIOID	cardioid	EPOPE	epopee
DISID	disidentify	ERBRE	gingerbread
DITID	Aphroditidae	ERCRE	watercress
DIVID	divide	ERDRE	overdressed
DOLOD	idolodulia	ERERE	Miserere
DOMOD	pseudomodern	ERFRE	interfret
DOPOD	cnidopod	ERGRE	evergreen
EADAE	Gastreaeadae	ERIRE	perirectal
EATAE	Ocreatae	ERORE	seroreaction
EBABE	scarebabe	ERPRE	afterpressure
ECACE	Arecaceae	ERTRE	aftertreatment
ECICE	deciceronize	ERURE	hyperuresis
EEBEE	freebee	ERWRE	interwreathe
EEDEE	fiddledeedee	ESOSE	mesoseismal
EEGEE	squeegee	ETATE	acetate
EEJEE	geejee	ETETE	Chaetetes
EEKEE	beekeeper	ETITE	petite
EEPEE	teepee	ETOTE	magnetotelegraph
EESEE	seesee	ETSTE	filletster
EETEE	teetee	EVIVE	revive
EEVEE	sleeveen	EVOVE	laevoversion
EEWEE	beeweed	EWSWE	newsweekly
EGAGE	degagé	FALAF	falafel
EHEHE	sheheheyanu	FICIF	ficiform
		FILIF	filiferous

FINIF	finific	IMAMI	imamic
GALAG	galago	INANI	inanimate
GARAG	garage	INENI	linenize
GAVAG	gavage	inini	asininity
GITIG	Digitigradia	INKNI	inknits
GNING	designing	INONI	Sinonism
GOGOG	logogogue	ILOI	varioloid
GOLOG	algological	IONOI	cationoid
GONOG	gonogenesis	IOPOI	Argiopoidea
GOPOG	Tragopogon	IOTOI	haliotoid
HABAH	okthabah	IOVOI	semiovoid
HAIHA	rephaiah	IOZOI	heliozoic
HAKAH	Tirhakah	IPAPI	antipapism
HALAH	chalah	IPOPI	semipopish
HAMAH	shamah	IPUPI	bipupillate
HANAH	Puchanahua	IRERI	schairerite
HAPAH	chapah	IRIRI	piririgua
HARAH	taharah	IRTRI	pairtrick
HEHEH	sheheheyanu	IRURI	spirurid
HEMEH	Chemehuevi	ISASI	disasinate
HEREH	therehence	ISUSI	misusing
HOBOH	hobohemia	ITATI	citation
HOLOH	holohedral	ITETI	whitetip
HOMOH	homohedral	ITITI	addititious
HOTOH	photohalide	ITOTI	amitotic
HRORH	arthrorheumatism	ITSTI	spitstick
HURUH	thuruh	ITUTI	institution
IAIAI	aiaiai	IVIVI	antivivisection
IANAI	indianaite	IVOVI	slivovitz
IARAI	tiaraing	JILIJ	hajilij
IBABI	describability	JIPIJ	jipijapa
IBIBI	Ibibio	KABAK	Kabaka
ICACI	efficacious	KAIKAK	kaiaks
ICECI	pericecitis	KAJAK	kajaks
ICICI	amicicide	KALAK	Kalakan
ICKCI	dickcissel	KAMAK	sackmaker
ICOCI	opticociliary	KANAK	Kanaka
IDADI	Trinidadian	KARAK	karakul
IDODI	iridodiagnosis	KATAK	katakana
IEPEI	Cassiepeia	KAVAK	kavakava
IESEI	frieseite	KAWAK	kaikawaka
IKIKI	Waikiki	KAYAK	kayaks
ILALI	mogilalia	KAZAK	Kazakh
ILDLI	childlike	KCOCK	blackcock
ILELI	filelike	KELEK	keleks
ILKLI	milklike	KEREK	Kereks
ILMLI	filmlike	KINIK	Akiskemikinik
ILOLI	kiloliter	KUBUK	kubuklion
ILTLI	miltlike	KUKUK	kukukuku
ILULI	pilulist	KUMUK	Kasikumuk
ILYLI	lilylike	KUPUK	okupukupu

LABAL	hullabaloo	MATAM	matamoro
LADAL	Siphonocladales	MAZAM	mazama
LAFAL	tulafale	MESEM	Mesembryanthemum
LAGAL	plagal	METEM	metempiric
LAMAL	kalamalo	MILIM	similimum
LANAL	biplanal	MINIM	minimum
LAPAL	Tlapallan	MISIM	misimagination
LATAL	palatal	MOEOM	Homoeomeri
LAVAL	lavalieri	MOLOM	molompi
LAZAL	chalazal	MONOM	monomer
LCYCL	dolcycline NW	MOROM	moromancy
LDEDL	foldedly	MOSOM	chromosome
LEBEL	glebeless	MOTOM	plasmotomy
LEDEL	ledeless OE	MOVOM	ethmovomer
LEFEL	cradlefellow	MTITM	Tomtitmouse
LEMEL	lemels	NABAN	unabandoned
LENEL	Olenellus	NACAN	Anacanthini
LETEL	completely	NAEAN	Dodonaeon
LEVEL	levels	NAGAN	Okinagan
LIBIL	gullibility	NAHAN	Kitunahan
LIMIL	slimily	NAIAN	naiant
LIPIL	aeolipile	NALAN	Bananaland
LIVIL	olivile	NAMAN	Chinaman
LLALL	pallall	NANAN	nanander
LLELL	paralleled	NAPAN	Kulanapan
LOBOL	Pilobolus	NATAN	natant
LOCOL	colocola	NAWAN	Okinawan
LOGOL	logology	NAYAN	Hinayana
LOMOL	Typhlomagge	NDEDN	mindedness
LONOL	cyclonologist	NDIDN	candidness
LOPOL	megalopolis	NEBEN	finebent
LOROL	phlorol	NEHEN	Stonehenge
LOSOL	typhlosole	NEMEN	confinement
LOVOL	kilovolt	NEPEN	nepenthe
LOXOL	loxolophodont	NEVEN	uneven
LOYOL	Loyolite	NGOGN	Pharyngognathi
LPOPL	colpoplastic	NICIN	cinchonicine
LUCUL	lucule	NIDIN	quinidine
LUMUL	plumule	NIGIN	hereniging
LUNUL	lunula	NIKIN	pannikin
LUPUL	lupulic	NILIN	aniline
LUTUL	lutulent	NIMIN	ketonimine
LUXUL	luxulianite	NININ	venining
LUZUL	Luzula	NIPIN	sniping
LYCYL	glycyl	NISIN	nisins
LYSYL	polysyllabic	NITIN	aconitin
MACAM	caimacam	NIVIN	conniving
MADAM	madame	NIWIN	jinniwick
MAKAM	kaimakam	NIXIN	nixing
MALAM	malamute	NIZIN	recognizing
MANAM	manama	NNUNN	unnumning
MAQAM	qaimmaqam	NOBON	snobonomer

NOCON	pycnoconidium	ORTRO	comfortroot
NODON	Achaenodon	OSESO	whossoever
NOGON	Pycnogonida	OTATO	potato
NOKON	Stephanokontae	OTOTO	prototonic
NOLON	Skoinolon	OTSTO	footstock
NOMON	gnomon	OTUTO	cotutor
NONON	nononerous	OTYTO	Speotyto
NOSON	ionosonde	OVIVO	ovivorous
NOTON	monotone	OWNWO	brownwort
OCACO	mazocacothesis	PAKAP	opakapaka
OCOCO	rococo	PALAP	palapteryx
OGOGO	logogogue	PANAP	panapospory
OGYGO	ogygos	PAPAP	papaphobia
OIDIO	diploidion	PARAP	parapet
OITIO	coition	PENEP	penepain
OKAKO	kokako	PEREP	hyperephidrosis
OLILO	soliloquy	PIHIP	ephippus
OLKLO	folklore	PILIP	Pilipino
OLOLO	diabolology	PINIP	pinipicrin
OLULU	woolulose	PIRIP	piripiri
OLYLO	monopolylogue	POCOP	apocope
OMOMO	homomorphic	PODOP	podophyllum
ONANO	nonanoic	POMOP	Epomophorus
ONENO	conenose	POROP	sporophyte
ONGNO	Mishongnovi	POSOP	anthroposophical
ONINO	Coconino	QAZAQ	Qazaqs
ONKNO	nonknowledge	RACAR	Peracarida
ONONO	aldononose	RADAR	radarscope
OOBOO	boobook	RAGAR	Fragaria
OOCOO	Roocooyen	RAHAR	vibraharp
OODOO	hoodoo	RALAR	interalar
OOFOO	foofoorah	RAMAR	extramarital
OOGOO	Teloogoo	RANAR	granary
OOHOO	boohoo	RAPAR	wraparound
OOKOO	pookoo	RATAR	Barataria
OOLOO	Koolooly	RAVAR	chakravartin
OONOO	hoonoomaun	RAWAR	drawarm
OOPOO	hoopoo	RAXAR	Xiraxara
OOROO	tooroo	RCHCR	archcriminal
OOSOO	soosoo	REAER	reaeration
OOZOO	oozoid	REBER	Schrebera
OPEPO	copepod	RECER	preceramic
OPOPO	prosopopoeia	REDER	Frederic
ORCRO	gorcrow	REFER	prefer
ORDRO	bordroom	REGER	regerminate
ORERO	storeroom	REHER	preheroic
ORGRO	forgrow	REJER	rejerk
ORKRO	workroom	RELER	quarreler
ORMRO	wormroot	REMER	remerge
ORNRO	cornroot	RENER	adrenergic
ORORO	tocororo	REPER	repertory
ORPRO	armorproof		

RESER	preserve	SIFIS	salsifis
RETER	preterit	SIGIS	Sigismund
REVER	forever	SILIS	basilisk
REWER	brewer	SIMIS	pessimism
REXER	overexert	SINIS	sinister
REYER	preyer	SIPIS	resipiscence
REZER	Sharezer	SITIS	sinusitis
RGOGR	ergogram	SIVIS	permissivist
RICIR	trircular	SKOKS	uskoks
RIDIR	gridiron	SOPOS	dorsoposteriad
RIKIR	trikir	SOROS	psorosis
RIVIR	trivirga	SPEPS	dyspepsia
ROBOR	corroborate	SSASS	assassin
ROCOR	Hydrocorallia	SSESS	assess
RODOR	centrodorsal	SSISS	Mississaga
ROFOR	chloroform	STATS	cryostats
ROGOR	subrogor	STETS	sestets
ROMOR	Alectoromorphae	STITS	wistits
RONOR	kronor	SULUS	pessulus
ROPOR	Acropora	SUOUS	sensuous
ROSOR	Microsorex	SURUS	Cynosurus
ROTOR	Protorohippus	SUTUS	nasutus
ROVOR	citrovorum factor	TABAT	catabatic
RTETR	hypertetrahedron	TAGAT	tagatose
RTSTR	heartstrings	TALAT	tantalate
RUCUR	urucuri	TAMAT	Kitamat
RUJUR	Yurujure	TANAT	sultanate
SABAS	casabas	TAPAT	vitapathy
SADAS	posadaship	TARAT	tarata
SAIAS	Osaias	TASAT	Ajatasatru
SALAS	Rasalas	TATAT	metatatic
SAMAS	tsamas	TAWAT	Potawatami
SAPAS	Sihasapas	TAXAT	taxation
SARAS	samsaras	TEBET	Tebeth
SANAS	Sanasib	TEGET	strategetic
SEBES	sebesten	TELET	telethon
SECES	secession	TEMET	antemetallic
SEDES	supersedes	TENET	tenets
SEGES	eisegesis	TERET	anhysteretic
SEHES	sehesima	TEVET	Teveth
SELES	baseless	TEWET	tewets
SEMES	semester	TIBIT	chalcostibite
SENES	closeness	TICIT	elasticity
SERES	Acipenseris	TIDIT	vastidity
SESES	Moseses	TIGIT	harstigite
SEXES	unsexes	TIKIT	fasibitikite
SEYES	armseyes	TILIT	utility
SHAHS	padishahs	TIMIT	intimty
SICIS	classicist	TINIT	retinite
SIDIS	Hasidism	TIPIT	stipitate
SIEIS	lassieish	TIRIT	antiritual

TlSlT	wichtisite	UPAPU	upapurana
TlTlT	multititular	UPSPU	upspurt
TlVlT	activity	URCRU	surcrue
TIWlT	antiwit	URGRU	urgrund
TIZlT	Tizite	URORU	urorubin
TOCOT	hectocotyl	URURU	Saururus
TOMOT	automotive	UTOTU	autotuberculin
TONOT	protonotary	UTSTU	outstudy
TOPOT	autopotent	VlSlV	divisive
TOROT	autorotation	WALAW	walaway
TOSOT	autosoteric	WEREW	werewolf
TOXOT	toxotae	WlKlW	awikiwiki
TRORT	metrorthosis	WOKOW	wokowi
TSYST	postsystolic	WOROW	worowem
TTATT	tittattoo	XOTOX	auxotox
TTETT	mottetti	YADAY	yadayim
TUMUT	tinctumutation	YARAY	yarays
TUTUT	Tututni	YAWAY	flyaway
UAHAU	quahaug	YBABY	crybaby
UANAU	aquanaut	YCOCY	mycocyte
UARAU	Guaraunan	YLGLY	acetylglycine
UClCU	nuciculture	YLlLY	daylily OS
UCOCU	mucocutaneous	YLOLY	amyolysis
UCUCU	curucucu	YNONY	synonym
UFOFU	rufofulvous	YPOPY	hypopygial
UHuhu	auhuhu	ZALAZ	benzalazine
UIDIU	equidiurnal	ZlNlZ	phlorhizinize D
UKUKU	kukukuku	ZZAZZ	pizzazz
ULULU	ululus		
UNDUN	groundnut		
UNENU	unenumerable		
UNINU	uninuclear		
UNSNU	unsnuddable		
UOROU	languorous		

### *ONCE MORE, A CELEBRATION OF ENGLISH*

*Robert Claiborne's Our Marvelous Native Tongue was first reviewed in the August 1983 issue of Word Ways (p. 152). Times Books has now issued this 339-page "joyous celebration of English" (in Willard R. Espy's phrase) in paperback for \$9.95. The author describes the book as "a long love letter to the English language," and a "tribute to the civilization that developed that language."*