

2004

Linda Malan Hilton v. Utah State Retirement Board, Long Term Disability Program: Reply Brief

Utah Court of Appeals

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IN THE UTAH COURT OF APPEALS

LINDA MALAN HILTON,

REPLY BRIEF OF THE PETITIONER

Appellant/Petitioner,

vs..

Case No. 20040950-CA

UTAH STATE RETIREMENT BOARD,
LONG TERM DISABILITY PROGRAM,

Appellee/Respondent.

AN APPEAL FROM A FORMAL AGENCY ADJUDICATION DENYING
DISABILITY BENEFITS
HEARING OFFICER JAMES L. BARKER, JR. PRESIDING

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PARTIES TO THE PROCEEDINGS BELOW

The caption of the case on appeal contains the names of all parties to the proceedings before the Agency.

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RESPONSE ON STATEMENT OF THE ISSUES & STANDARD OF REVIEW
FIRST ISSUE ON APPEAL

Issue. Did the Hearing Officer (HO) Err by Concluding That There Was No Objective Evidence of Petitioner's Disability, by Requiring an "Impairment Rating" and by Applying the Utah Worker's Compensation Guidelines?

UCA § 63-46b-16(4) Subsection and Standard of Review. Petitioner asserts that this issue falls within UCA § 63-46b-16(4)(d) and (h)(iv) because the Agency erroneously interpreted and applied the law regarding hearsay and the statutory definition of a disability that requires objective medical evidence of an "impairment." The Agency's conclusions also were arbitrary and capricious. Since the Agency has not been given any discretion to redefine the legal definition of hearsay or to add an additional requirement to UCA § 49-21-102(11)(a) and UCA § 49-21-102(6) to mean that "Total disability" and "Objective medical impairment" require--an "objective medical impairment rating" pursuant to the 5th Edition of the AMA Impairment Guides and the Utah Worker's Compensation Impairment Guides--the Court of Appeals should review this issue under a de novo standard of review, giving no deference to the Agency. See *Morton v. State Tax Comm.*, 814 P.2d 581, 588-89 (Utah 1991).

SECOND ISSUE ON APPEAL

Issue. To Prove the Severity of Petitioner's Disability Did the Hearing Officer Err by Requiring Objective Evidence at the Exclusion of Subjective Evidence?

UCA § 63-46b-16(4) Subsection and Standard of Review. Petitioner asserts that this second issue also falls within UCA § 63-46b-16(4)(d) and (h)(iv) because the Agency

erroneously interpreted and applied the law by requiring that not only must the “impairment” that causes the disability be established by “accepted objective medical tests or findings” but that the severity of the impairment must also only be established by “accepted objective medical tests or findings,” at the exclusion of subjective evidence. This is also an arbitrary and capricious position and denies the reality that most impairments cause disabling symptoms that must be described through subjective evidence. Since the Agency has not been given any discretion to again add to UCA § 49-21-102(11)(a) and UCA § 49-21-102(6) the requirement that the severity of the impairment be solely established through “objective medical” evidence, the Court of Appeals should review this issue under a de novo standard of review, giving no deference to the Agency. See *Morton v. State Tax Comm.*, 814 P.2d 581, 588-89 (Utah 1991).

THIRD ISSUE ON APPEAL

Issue. Did the HO Err by Failing to Find Petitioner Disabled By Considering the Combined Effect of Petitioner’s Impairments and by Failing to Take into Consideration Petitioner’s SSA Determination?

UCA § 63-46b-16(4) Subsection and Standard of Review. Petitioner asserts that this third issue falls within UCA § 63-46b-16(4)(c)(g) and (h)(iv) because the Agency completely failed to consider the combined effect of any of the Petitioner’s impairments other than her fibromyalgia and chronic fatigue syndrome. In so doing it has not decided all of the issues requiring resolution in this matter. Moreover, its actions are based upon a determination of fact that is not supported by substantial evidence when the record is

viewed as a whole and it acted arbitrarily and capriciously in failing to consider this issue. Since the Agency has not been given any discretion to disregard some impairments or the combined effect of Petitioner's impairments, the Court of Appeals should review this issue under a de novo standard of review, giving no deference to the Agency. See *Morton v. State Tax Comm.*, 814 P.2d 581, 588-89 (Utah 1991).

Citation to Record of Issue Preservation. HR 337; Hearing Transcript (HT) 250:2-25, 251:1-16, 252:1-15, 265:6-16, 292:13-20, 293:14-25, 294, 295:1-2, 297:21-25, 298:1-6, 299:1-25, 303:5-25.

FOURTH ISSUE ON APPEAL

Issue. Did the HO Err by Finding Dr. Knorpp's Testimony to Be Credible and Persuasive?

UCA § 63-46b-16(4) Subsection and Standard of Review. Petitioner asserts that this fourth issue also falls within UCA § 63-46b-16(4)(d)(g) and (h)(iv) because the Agency did not properly perform its gate-keeping functions by admitting the unreliable testimony of Dr. Knorpp. Even when matched against the criteria that Dr. Knorpp provided during his testimony, his evaluation of Petitioner's impairments was shown to be patently lacking foundation and to be unreliable. Therefore, the Agency acted arbitrarily and capriciously in even considering his testimony. There may have been a different result if Petitioner had been claiming disability solely because of an orthopaedic impairment, since Dr. Knorpp in fact conducted an orthopaedic evaluation. Since she was not and since, according Dr. Knorpp's own testimony, he failed to apply any proper

analysis to Petitioner's impairments and therefore his testimony should have been completely disregarded. It is debatable whether this is a purely legal question or a mixed question of law and fact. Giving deference to the Agency, the Court of Appeals should review this issue under an intermediate abuse of discretion standard of review. See *Morton, supra*.

Citation to Record of Issue Preservation. HR 105:3-25, 106:1, 241-257, 347-348, 359-362.

FIFTH ISSUE ON APPEAL

Issue. Did the HO Err by Failing to Draft Detailed Findings of Fact, Conclusions of Law and the Final Order?

UCA § 63-46b-16(4) Subsection and Standard of Review. Petitioner asserts that this fifth issue falls within UCA § 63-46b-16(4)(c)(e) and (h)(iv) because when the HO failed to determine all the issues before him and conceded that duty to the Agency attorney, he created a completely partisan decision process, did not follow proscribed procedures, and acted arbitrarily and capriciously. This is again a question of law and the Court of Appeals should still review this issue under a de novo standard of review, giving no deference to the Agency. See *Morton v. State Tax Comm.*, 814 P.2d 581, 588-89 (Utah 1991).

Citation to Record of Issue Preservation. HR 336, 378-380.

INTRODUCTION TO REPLY BRIEF

Petitioner would respectfully submit that the lexicon of this appeal is important and that the misuse of terms has created room for shoddy analysis. The applicable lexicon needs to be clearly defined for appropriate use. Several terms are defined statutorily. They are:

1. **“Total Disability:**” “the complete inability due to objective medical impairment to engage in the employee’s regular employment.” UCA § 49-21-102(11)(a).

2. **“Objective medical impairment:**” “an impairment resulting from an . . . illness which is diagnosed by a physician and which is based on accepted objective medical tests or findings rather than subjective complaints.” UCA § 49-21-102(11)(a).

A. **“Objective medical impairment”** is further defined in the PEHP’s definition of a medically determinable impairment, as: “an impairment that results from anatomical, physiological, or psychological abnormalities **which can be shown by medically acceptable clinical and laboratory diagnostic techniques.** A physical or mental impairment **must be established by medical evidence consisting of signs, symptoms, and laboratory findings, not only by the individual’s statement of symptoms.**”^{1 2}

¹ “Objective medical impairment,” or “Total Disability” is never defined anywhere except by the Agency as an “objective medical impairment rating,” using the AMA Guides and the Utah Worker’s Compensation Guides.

² This definition is almost identical to the SSA protocol required for finding a CFS and FMS based impairment. The SSA states: “our implementing regulations require that an

Several other terms are defined by medical texts, such as the 5th Edition of the AMA Impairment Guides and others by the Webster's Medical Desk Dictionary. They are:

1. **"Impairment"**: "a loss, loss of use, or derangement of any body part, organ system, or organ function." (AMA Guides) (Exhibit A)
2. **"Impairment Rating"**: "consensus derived estimates that reflect the severity of the impairment and the degree to which the impairment decreases an individual's ability to perform common activities of daily living . . ." (AMA Guides) (Exhibit A)
3. **"Symptoms"**: "subjective evidence of disease or physical disturbance observed by the patient." (Webster's) (Exhibit B)
4. **"Signs"**: "an objective evidence of disease especially as observed and interpreted by the physician rather than by the patient or lay observer." (Webster's) (Exhibit B)
5. **"Diagnose"**: "to recognize by signs and symptoms; . . . to diagnose a disease or condition." (Webster's) (Exhibit B)

FMS based impairment. The SSA states: "our implementing regulations require that an individual establish disability based upon the existence of a medically determinable impairment, i.e. one that can be shown by medical evidence, consisting of medical signs [objective], symptoms [subjective], laboratory findings [objective]. **Disability may not be established on the basis of an individual's statement of [subjective] symptoms alone.** . . CFS, when accompanied by appropriate medical **signs or laboratory findings** [i.e., objective medical evidence], is a medically determinable impairment that can be the basis for a finding of disability." HR 124:16-23; 129:16-22.

6. **“Diagnosis”**: “the art or act of identifying a disease from its signs and symptoms.” (Webster’s) (Exhibit B)

7. **“Disease”**: “an impairment of the normal state of the living animal . . . or of any of its components that interrupts or modifies the performance of the vital functions and is a response to environmental factors . . . , to specific infected agents, . . . , to inherent defects of the organism, . . . or two combinations of these factors.” (Webster’s) (Exhibit B)

8. **“Condition”**: “a usually defective state of health.” (Webster’s) (Exhibit B)

These definitions demonstrate that neither “Total Disability” nor “Impairment” are synonymous with the term “impairment rating.” The fact is Petitioner had several “impairments” that were established by objective medical evidence and the severity of her “impairments” have been establish both by her subjective “symptoms” and by objective “signs.”

It is undisputed that the Petitioner has several “*diagnosis” **(plural: diagnoses)* of various “diseases” or “conditions.” They are severe sleep apnea, Fibromyalgia Syndrome (FMS), Chronic Fatigue Syndrome (CFS), hypertension, heart valve disease, neuropathy, degenerative disc disease and psychological problems.

The Agency, however, asserts that Petitioner’s diagnosis* of FMS and CFS are not “impairments” because they have not been established by objective medical evidence through an appropriate measuring or rating system to assign an “impairment rating.” As

to Petitioner's sleep apnea, hypertension, heart valve disease, neuropathy, degenerative disc disease and psychological problems, it is unclear if the Agency asserts that these "diagnoses" have also not been established as "impairments" because of the alleged lack of objective medical evidence. In view of undisputed medical testing thereon, i.e., sleep studies, neurological studies, psychological testing, and imaging studies, such a position is untenable. However, perhaps the Agency can clarify its position on oral argument.

The Agency asserts that Petitioner has not been given an "impairment rating." This is conceded and therefore if an "impairment rating" is legally indispensable for a finding of "total disability" her appeal may be denied and this will then be understood by all who apply for disability benefits.

The Agency further asserts that Petitioner has failed to demonstrate through objective medical evidence the existence and severity of her "symptoms"; i.e., fatigue, pain, sleepiness. Petitioner concedes that her most disabling "symptoms" are pain, fatigue and sleepiness. They are by definition subjective and cannot be shown by objective medical evidence. If this is legally indispensable for a finding of "total disability," and if the combined effect of her objective "signs" of cognitive difficulties and neuropathy, etc. are deemed insufficient, then her appeal may be denied.

On the other hand, if her impairments have been shown by objective medical evidence and the law thereafter allows consideration of her subjective symptoms to prove the severity of her impairments, as she and her witnesses have reported, they should have

been considered by the Agency.

RESPONSE TO THE AGENCY'S SUMMARY OF FACTS

The Agency asserted at its ¶ 7 that, “Both Petitioner and Dr. Landon Beales . . . testified . . . that the worst **conditions** [the proper term would be “symptoms”] Petitioner suffers from is pain and fatigue.” If by “conditions” the Agency meant a “defective state of health” then this was not an accurate representation of the record. These were “symptoms.” Contrarily, Petitioner suffered from a “defective state of health” due to all of her “diagnosis” or “conditions.”

The Agency asserted at its ¶ 8 that, “Petitioner was also diagnosed with sleep apnea and lumbar degenerative disc disease. However, she failed to provide any evidence that she was objectively impaired due to these conditions.” The Agency’s use of the phrase “diagnosed with” suggests that Petitioner’s diagnoses of sleep apnea and lumbar degenerative disc disease are not “impairments.” This is not true. A “diagnoses” is the identification of a “disease” from its “signs” (objective evidence) and its “symptoms” (subjective evidence). A “disease” is an impairment of the normal state of the living animal, or in other words “a derangement of any body part, organ system, or organ function. derangement of a body part, organ system, or organ function,” and is therefore an “impairment.”

Sleeping is an essential bodily function controlled by a system of organs involving the brain, the respiratory and circulatory systems and the chemicals of the body. Sleep

apnea is not only a “diagnoses,” “disease,” but an “impairment.” The “diagnosis” of this “disease” or “impairment” was first indicated by Petitioner’s reported subjective “symptoms.” It was then objectively substantiated by objective accepted medical testing that measured “signs” indicating that Petitioner’s sleep apnea was **severe**. Therefore, it was and is an objectively established impairment.

Moreover, Petitioner’s lumbar degenerative disc disease, is not only a “disease,” or “diagnosis” but is an “impairment.” It was diagnosed by its objective “signs” through imaging studies. Granted, Dr. Knorpp curiously opined that it had the same physiological significance of gray hair and wrinkled skin (HT 293:23-25), but it is nonetheless “a derangement” or “impairment” of the spine and is disabling to thousands of Americans.

The Agency asserted at its ¶15 that, “no evidence was presented by Petitioner to indicate that she qualifies for an objective impairment rating pursuant to . . . any other accepted objective criteria,” for her “impairment” of CFS and FMS. This is incorrect. Although she was not given an “impairment rating,” she provided the accepted objective criteria used by AADEP and the SSA, to assign an impairment rating and to determine the severity thereof, that could have been used by the HO to understand both the “objective” criteria for establishing the impairment and to determine the degree of severity thereof.

RESPONSE TO SUMMARY OF ARGUMENTS AND ARGUMENTS

I. “Impairment Rating” and the “Guidelines”

The Agency and its counsel, at the hearing³ in this matter attacked Petitioner personally and in both its closing argument and its appellate brief made complaints of unethical behavior against Petitioner's counsel. Petitioner's counsel would concede that he is sometimes too fervent in his oral and written rhetoric. As an individual who contends with the reality of FMS in his own life, it is sometimes hard to remain indifferent and diplomatic in the face of extreme ignorance and bias. He would hope that his personal conduct, however it is viewed, would not deflect from the arguments made herein.⁴ However, as admitted by the Agency at page 41 of its brief, "the H.O. has never

³ The Agency's counsel referred to Petitioner's counsel's opening statements as "medical outer space." HT 8:24-25.

⁴The Agency falsely alleges that Petitioner's counsel, "screamed at him Dr. Knorpp," and subjected him to improper vitriol." It should suffice that the HO was present to regulate and sanction any observed "screaming" or improper vitriol. If not, the Agency should produce audio portions of the tapes of the alleged "screaming." The fact is that no "screaming" occurred. What did occur is that while Dr. Beales was testifying, Dr. Knorpp entered, spoke out loud and grinned and pointed at the Petitioner. Petitioner's counsel should have addressed this with the HO only.

DR. BEALES: I've practiced internal medicine for 35 years.

MR. HANSEN [sic--Mr. Lambert]: And Dr. Knorpp, I would appreciate it if you would show the witness some respect here.

MR. HANSEN: I object to that. . .

HEARING OFFICER: I'm sorry, I didn't understand that.

MR. LAMBERT: He was making noise and grinning and—

MR. HANSEN: *I'm sorry but there's no disrespect shown to the witness.*

MR. LAMBERT: That's what it appeared to me.

. . . .

HEARING OFFICER: Do we have any problem here?

MR. LAMBERT: I don't know. It just appeared to me that he was interrupting his testimony.

MR. HANSEN: I didn't hear anything from—

HEARING OFFICER: So we will all try to be as courteous as we can and not

ruled in favor of a disability claimant with FMS or CFS.” That is the overarching issue in this appeal. The Agency has an absolute, inflexible policy of denying benefits to claimants with FMS or CFS. This arbitrary policy is facilitated by its selection of a like-minded expert witness, Dr. Knorpp, and a seemingly like-minded Hearing Officer.

It is a daunting task to represent a severely disabled individual who is condemned to penury by a very enigmatic, elusive but real impairment. This is made even more daunting when, regardless of the particular facts of Petitioner’s individual case, it is known that the Agency and its decision makers have an arbitrary policy of denying all claims for benefits based on FMS and CFS and are therefore completely unreceptive to any arguments or additional developing science on the subject that would persuade them that their arbitrary policy is misguided. Because of this arbitrary policy, it is necessary to try to breach the thick veneer of ignorance and complacency with frank arguments about Dr. Knorpp’s bias and unreliability and the Agency’s erroneous position on CFS and FMS.⁵

interrupt the doctor’s testimony. I was not aware that that was happening but if you thought it was, then what we’ll say is keep quiet everybody and let the witness testify. HT 14:11-25; 15:1-11.

⁵Dr. Knorpp interrupted Petitioner’s counsel during cross examination and at one point had to be admonished by the HO. HT 271:19-25; 272:1-2.

The Agency alleges, “Petitioner’s Counsel intentionally and repeatedly mispronounced Dr. Knorpp’s name after having been told the correct pronunciation.” This is false. Petitioner’s counsel had previously heard Dr. Knorpp’s name pronounced with a voiced “K” and had learned to pronounce it this way so that it was an ingrained habit. At

As further evidence of his unreliable testimony, the Agency argues that the “Board Reasonably Used the [Fifth Edition⁶] AMA and Utah Impairment Guidelines in Requiring Petitioner to Show an ‘Objective Medical Impairment.’” The Agency’s use of these Guidelines as an exclusive tool was not reasonable for many reasons.

First, the Guides themselves state:

. . . An impairment can be manifested objectively, for example, by a fracture, and/or subjectively, through fatigue and pain.

. . . .

. . . [I]mpairment ratings **are not intended for use as direct determinants of work disability**. When a physician is asked to evaluate work-related disability, it is appropriate for a physician knowledgeable about the work activities of the patient to discuss the specific activities the worker can and cannot do, given the permanent impairment. Exhibit A.

Dr. Knorpp, in rendering his erroneous opinion did not know and asked nothing

the hearing, Petitioner’s counsel was informed that the “K” was silent. Although he may appear to be a wall of confidence, Petitioner’s counsel is often nervous at court proceedings and often reverts to learned habits, such as pronouncing the “K” in Knorpp. At no time did he purposely mispronounce Dr. Knorpp’s name.

Lastly, the Agency objects to the metaphors used to characterize Dr. Knorpps’ demonstrated biases and rude behavior toward the Petitioner. Our unduly politically correct modern era has become so enamored with credentials, erudite language and Armani suits. Consequently, we often think that experts dressed in them are above irrational, petty and woefully biased opinions. They are not. The evidence, testimony and arguments against Dr. Knorpp’s opinions, despite their expensive dressings, stand on their own hopefully demonstrating that his opinions and actions are so biased, erroneous and irrational to be deemed unreliable. Courts should be willing to take a stand against such obviously mercenary opinions. Whatever this Court concludes, Petitioner’s counsel apologizes for taking what he felt was a principled and clarion stand against an expert who has been allowed by the Agency to be the sole arbiter of this case.

⁶ It is the “Fifth Edition” that was used by Dr. Knorpp, it is the Fourth Edition that AADEP recommends use of in conjunction with its policies to assign an impairment rating to persons with FMS and CFS.

about Petitioner's work activities" nor did he, "discuss the specific activities [Petitioner] can and cannot do, given the permanent impairment." HT 239:5-11. This is another example of the unreliability of his opinion and of the irrationality of the Agency's position.

Second, as the Agency is conveniently aware, these guidelines, as they are currently constituted, do not allow for an "impairment rating" for FMS and CFS. Hence, it begs the question whether the Agency's arbitrary policy to deny benefits for claimants with CFS and FMS was created as a result of these Guides or the Guides were selected because they support its policy. Either way, this decision to use the "Guides" exclusively is arbitrary because it restricts its discretion to consider any other authority.

Third, the Utah Worker's Compensation Guidelines were promulgated to be used only to evaluate orthopaedic injuries to determine eligibility for Worker's Compensation benefits. The fact that Dr. Knorpp attempts to use this in other contexts is irrelevant and is tantamount to promulgating law.

Throughout the Agency's appellate brief, it melds the issues of assigning an "impairment rating" for FMS and CFS with the issue of determining whether or not an "objective medical impairment," can be based on FMS and CFS. Neither the [Fifth Edition of the] AMA guidelines nor the Utah Workers Compensation Guidelines take a position on whether or not claimants with FMS or CFS have an "objective medical impairment." They merely indicate that an "impairment rating" will not be given to

“impairments” due to FMS or CFS using their guidelines.

Possibly to hedge its bets, and to dress its arbitrary policy and decision in a guise of rationality to defeat this appeal, the Agency claims, “while an ‘impairment rating’ is not required by the statute, an ‘objective medical impairment’ using ‘accepted medical tests or findings’ is required.” While this is certainly true, it is not what happened in the Agency’s, Dr. Knorpp’s or the HOs’ analysis and determination of this case.

Dr. Knorpp testified that since the AMA and Utah Guidelines do not allow an “impairment rating” for Petitioner’s FMS and CFS, Petitioner could never be deemed “impaired” or “totally disabled.” Dr. Knorpp further asserted that the AMA and Utah Guidelines are exclusively applicable to all jurisdictions and are the only measure that can be used when evaluating FMS and CFS. Despite its admission that an “impairment rating” is not a statutory requirement, the Agency agrees with Dr. Knorpp and argues throughout its appellate brief that in fact an “impairment rating” was critical to its decision to deny benefits. This is arbitrary and capricious and again is tantamount to allowing Dr. Knorpp to promulgate law.

The Agency goes on to argue that Petitioner was compelled to use the AMA or Utah guidelines, “or provide evidence of some other medically accepted objective criteria in which to measure impairment. Petitioner argues for the first time in this appeal that the board should have used the [AADEP] and the Social Security Administration guidelines as medically accepted criteria to determine impairment.” By footnote, the

Agency further argues:

AADEP and SSA do not really provide guidelines for determining impairment. The irony of Petitioner pointing to the AADEP 'guidelines' is that even under this standard, Petitioner would not qualify for any 'objective medical impairment.' The AADEP papers submitted by Petitioner States, 'Must Use AMA Guidelines.' In contrast, SSA does not use any medically acceptable "guidelines" but instead relies on the common-law interpretation of the statutory definition of "medically determinable impairment" as its standards.

These various arguments and assertions are incorrect. First, by these argument the Agency is again confusing two distinct issues and is again gainsaying its own admissions that an "impairment rating" is not statutorily required in these determinations. In essence, an objective "impairment rating," is the same thing as, a "medically accepted objective criteria in which to measure impairment." Admittedly this not the law. The only statutory requirement is that the claimant first have an "objective medical impairment" that is established by "accepted medical tests or findings."

Petitioner established that she has objective medical impairments based upon "accepted medical tests or findings." Hence, the severity of her impairments or the "measurement" thereof, may be shown by both her subjective testimony about her "symptoms" and the objective "signs" of her impairments as shown by her medical testing -- such as her severe sleep apnea. Dr. Knorpp himself agreed that sleep impairments can be measured objectively. HT 253:12-18.

Second, contrary to the Agency and Dr. Knorrps' position, the AADEP's guidelines--Dr. Knorpp's own certifying organization--do create a protocol by which

Petitioner's impairments for FMS and CFS could have been objectively "measured," and given an "impairment rating." The AADEP's guidelines indicate that the **4th Edition** (not the 5th as used by Dr. Knorpp) of the AMA Guides are to be used in conjunction with its own guidelines to assign the impairment rating. The Agency has simply missed this important detail. HR 339. If Dr. Knorpp does not have a bias, one would question why he refused to apply his own certifying organization's guidelines.

Third, while it is true that the SSA guidelines do not assign an "impairment rating" for CFS and FMS, they provide an objective framework to objectively establish an "impairment" based thereon. The SSA guidelines in fact allow a Federal Administrative Law Judge to determine--based upon the "objective medical evidence" as demonstrated by the medical "signs" (objective indicia) including "persistence, reproducible muscle tenderness on repeated examinations, including the presence of positive tender points" and laboratory findings (additional objective indicia), including, "abnormal sleep studies" and "psychological testing"--that a claimant with FMS or CFS has an "impairment" and to then measure the severity of the "impairment" to determine if it is totally disabling. HR 221 p 170, 171. This Court may take judicial notice of the fact that the SSA policies are applied throughout the United States. The Agency's argument hereon again suggests that an "impairment rating," is statutorily compelled and as it admitted this is not the law.

In the same footnote addressed above, the Agency further argues that because the 2002 Utah Legislature changed the language from "medically determinable impairment"

to “objective medical impairment” that the “Legislature did not want the LTD Program to use the SSA common-law as persuasive authority.” Actually the opposite rationale applies. The SSA policy indicates:

However, the Social Security Act in our implementing regulations require that an individual establish disability based upon the existence of a medically determinable impairment, i.e. one that can be shown by medical evidence, consisting of medical signs [objective], symptoms [subjective], laboratory findings [objective]. **Disability may not be established on the basis of an individual’s statement of [subjective] symptoms alone.** . . . CFS, when accompanied by appropriate medical **signs or laboratory findings** [i.e., objective medical evidence], is a medically determinable impairment that can be the basis for a finding of disability.” HT 124:16-23; 129:16-22.

This language is very similar to the statutory language applicable to this case. The SSA requires that a disability for CFS cannot be solely based upon a claimant’s report of subjective symptoms but must also be based upon the medical signs and laboratory findings which are medically objective evidence of the impairment. Hence the new language applicable to the LTD program is consistent with and not contrary to the SSA “common law.”

Lastly, contrary to the Agency’s assertions, the Petitioner did not argue that the SSA and AADEP Guidelines were applicable to this case for the first time on appeal. It was argued by Petitioner in opening statements, it was addressed in the cross examination and the HO acknowledging its relevance as a guideline similar to the AMA Guides⁷, and

⁷ MR. HANSEN: And I’d like to object just to the general question of using the Social Security guidelines as any kind of guideline in determining disability in this case as well.

it was argued in Petitioner's closing arguments. HT 4:23-25, 122:11-25; 123; 124; 129; HR 238-241, 246, 340.

II. Hearsay

During the administrative proceedings, the Agency did not make any objections as to the authenticity or the admissibility of Petitioner's Medical Records. Typically, in Administrative Proceedings the parties are not required to have the actual medical providers of the medical exhibits presented to authenticate the validity of the medical records and medical testing results. The Agency, citing URE Rule 803(4), completely disregarded the Petitioner's arguments that her medical records were not hearsay because, not only did they include statements made for purposes of medical diagnosis of or treatment, etc., but they were received without objection, and were the basis for her expert witness' testimony pursuant to URE Rule 702. Therefore, not only did the HO have the testimony of the expert witness but he had the other medical provider's information and opinions.

III. The Determination and Order

The Agency argues that "petitioner cannot point to anything in the record which

HEARING OFFICER: It would appear to me, counselor, that you have been referring to all kinds of guidelines.

MR. HANSON: That's true and while I think--

HEARING OFFICER: And if we're going to eliminate this, we ought to eliminate all of yours.

MR. HANSON: I agree.

suggests that the HO did not review or use her Social Security determination in reaching his decision.” While this is true, similarly, the Agency cannot point to anything in the record to suggest that the HO, deviating from the Agency’s admitted and acknowledged arbitrary policy of denying benefits for persons with CFS and FMS benefits, ever considered it.

The Agency also argues, “the Petitioner must show material factual or legal discrepancy between the [Decision and the Order].” In reality, the Petitioner has shown both legal and factual discrepancies between these two documents. The Decision, which was prepared by the HO, is a faint, vague shadow of the Order which was prepared by the Agency’s attorney. The two bear no relationship to each other. The Decision is so generic, by changing the names thereon it could apply to myriad cases before the Agency and shows absolutely no deliberative process engaged in by the HO.

Perhaps it is impractical, as a matter of general public policy, to require Hearing Officers to make more detailed Findings of Fact and Conclusions of Law in their Determinations so that the Determinations bear some resemblance to the final Orders. However, in view that the Agency has admitted that, “unsurprisingly, the HO has never ruled in favor of a disability claimant with FMS or CFS,” to ensure that some independent deliberations occur in this case, the Appellate Court is urged to require a Determination by the HO that addresses the issues specific issues presented to it by Petitioner.


CONCLUSION

While the Agency through its expert witness and the Ninth Circuit Court of Appeals are still of the erroneous belief that there are no objective indicia for impairments based on CFS and FMS, the Utah Supreme Court fully recognizes that FMS and CFS can be objectively established. As previously cited, in *Alder v. Bayer Corporation*, 61 P.3d 1068, 1077-1078, footnotes 4, 6 (Utah 2002), the Utah Supreme Court found that CFS and FMS are objective cognizable illnesses that are “more than merely subjective,” and fully recognized by the medical community as disabling.⁸ This finding is a stark contrast to Dr. Knorpp’s statement that: “There is no science to support the existence of [FMS].” HT 119:15-17.

Therefore, it is respectfully requested that pursuant to UCA § 63-46b-16 the HO’s and Agency’s Decision and Order be stricken and that the Agency be ordered to pay Petitioner her disability benefits.

Dated: March 18, 2005

ARROW LEGAL SOLUTIONS GROUP, PC

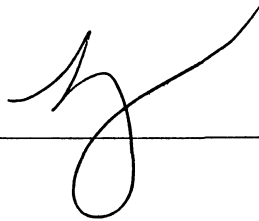

Loren M. Lambert
Attorney for Petitioner

CERTIFICATE OF MAILING

I certify that I mailed two true and correct copies of the foregoing document on

March 18, 2015, postage prepaid to:

David B. Hansen
Counsel for Respondent/Appellee
560 East 200 South, Suite 300
Salt Lake City, UT 84102

A handwritten signature in black ink, appearing to be 'D. B. Hansen', is written over a horizontal line.

Addendum

EXHIBIT A

The fifth edition includes most of the common conditions, excluding unusual cases that require individual consideration. Since this edition encompasses the most current criteria and procedures for impairment assessment, it is strongly recommended that physicians use this latest edition, the fifth edition, when rating impairment.

1.2 Impairment, Disability, and Handicap

1.2a Impairment

The *Guides* continues to define **impairment** as “a loss, loss of use, or derangement of any body part, organ system, or organ function.”² This definition of impairment is retained in this edition. A medical impairment can develop from an illness or injury. An impairment is considered permanent when it has reached **maximal medical improvement (MMI)**, meaning it is well stabilized and unlikely to change substantially in the next year with or without medical treatment. The term *impairment* in the *Guides* refers to **permanent impairment**, which is the focus of the *Guides*.

An impairment can be manifested objectively, for example, by a fracture, and/or subjectively, through fatigue and pain.³ Although the *Guides* emphasizes objective assessment, subjective symptoms are included within the diagnostic criteria. According to the *Guides*, determining whether an injury or illness results in a permanent impairment requires a medical assessment performed by a physician. An impairment may lead to functional limitations or the inability to perform activities of daily living.

Table 1-1, adapted from a report by the AMA Council on Scientific Affairs, lists various definitions of impairment and disability used by four main authorities: the AMA *Guides*, the World Health Organization, the Social Security Administration, and a state workers’ compensation statute.⁴ Although a nationally accepted definition for impairment does not exist, the general concept of impairment is similar in the definitions of most organizations. Several terms used in the AMA definition, and their application throughout the *Guides*, will be discussed in this chapter and Chapter 2.

Loss, loss of use, or derangement implies a change from a normal or “preexisting” state. *Normal* is a range or zone representing healthy functioning and varies with age, gender, and other factors such as environmental conditions. For example, normal heart rate varies between a child and adult and according to whether the person is at rest or exercising. Multiple factors need to be considered when assessing whether a specific or overall function is normal. A normal value can be defined from an individual or population perspective.

When evaluating an individual, a physician has two options: consider the individual’s healthy preinjury or preillness state or the condition of the unaffected side as “normal” for the individual if this is known, or compare that individual to a normal value defined by population averages of healthy people. The *Guides* uses both approaches. Accepted population values for conditions such as extremity range-of-motion or lung function are listed in the *Guides*; it is recommended that the physician use those values as detailed in the *Guides* when applicable. In other circumstances, for instance, where population values are not available, the physician should use clinical judgment regarding normal structure and function and estimate what is normal for the individual based on the physician’s knowledge or estimate of the individual’s preinjury or preillness condition.

Table 1-1 Definitions and Interpretations of Impairment and Disability

Organization	Impairment	Disability	Physicians' Role	Comments
<i>Guides to the Evaluation of Permanent Impairment</i> (5th ed, 2000)	A loss, loss of use, or derangement of any body part, organ system, or organ function	An alteration of an individual's capacity to meet personal, social, or occupational demands because of an impairment	Determine impairment, provide medical information to assist in disability determination	An impaired individual may or may not have a disability
World Health Organization (WHO) (1999)	Problems in body function or structure as a significant deviation or loss Impairments of structure can involve an anomaly, defect, loss, or other significant deviation in body structures	Activity limitation (formerly disability) is a difficulty in the performance, accomplishment, or completion of an activity at the level of the person Difficulty encompasses all of the ways in which the doing of the activity may be affected	Not specifically defined, assumed to be one of the decision-makers in determining disability through impairment assessment	Emphasis is on the importance of functional abilities and defining context-related activity limitations
Social Security Administration (SSA) (1995)	An anatomical, physiological, or psychological abnormality that can be shown by medically acceptable clinical and laboratory diagnostic techniques	The inability to engage in any substantial, gainful activity by reason of any medically determinable physical or mental impairment(s), which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months	Determine impairment, may assist with the disability determination as a consultative examiner	Physicians and nonphysicians need to work together to define situational disabilities
State Workers' Compensation Law (typical) ^a	"Permanent impairment" is any anatomic or functional loss after maximal medical improvement has been achieved and which abnormality or loss, medically, is considered stable or nonprogressive at the time of evaluation Permanent impairment is a basic consideration in the evaluation of permanent disability and is a contributing factor to, but not necessarily an indication of, the entire extent of permanent disability (<i>Idaho Code</i> section 72-422)	"Temporary disability" means a decrease in wage-earning capacity due to injury or occupational disease during a period of recovery (<i>Idaho Code</i> section 72-102[10]) "Permanent disability" results when the actual or presumed ability to engage in gainful activity is reduced or absent because of permanent impairment and no fundamental or marked change in the future can be reasonably expected (<i>Idaho Code</i> section 72-423)	"Evaluation (rating) of permanent impairment" is a medical appraisal of the nature and extent of the injury or disease as it affects an injured employee's personal efficiency in the activities of daily living, such as self-care, communication, normal living postures, ambulation, elevation, traveling, and nonspecialized activities of bodily members (<i>Idaho Code</i> section 72-424)	Purpose is to provide sure and certain relief to those who become injured by accident or suffer effects of disease from exposure to hazards arising out of and in the course of employment

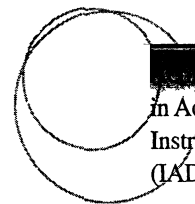
Data from healthy populations, when available and widely referenced, are incorporated into chapters of the *Guides*. In some organ or body systems, such as respiratory, certain measurements of lung function have been standardized for age and gender. In other body systems, such as the musculoskeletal, age and gender differences are not reflected in most of the values. While there may be age and gender differences anticipated for some musculoskeletal values, such as range of motion in the spine and extremities, this edition of the *Guides* mainly reflects average range of motion from healthy populations of mixed age and gender. The normal values presented in the musculoskeletal section are based on a review of studies measuring range of motion, as cited in the text. Evaluating physicians may use their clinical judgment, however, and comment on any significant age or gender effect for a particular individual. For instance, the “normal” preinjury range of motion for a gymnast with hypermobility may exceed the listed normal values.

If an individual had previous measurements of function that were below or above average population values, the physician may discuss that prior value and any subsequent loss for the individual, as well as compare it to the population normal. For example, a highly functioning athlete with documented, above-normal lung function, who has sustained an injury and now has decreased lung function that is nonetheless similar to population averages, has experienced a loss in his or her lung function and has sustained an impairment. Based only on a population comparison, the athlete would be given a 0% impairment rating. However, it would be more appropriate in this instance for the physician to assign an impairment rating based on the degree of change from the athlete’s preinjury to postinjury state.

In evaluating impairment, the *Guides* considers both anatomic and functional loss. Some chapters place a greater emphasis on either anatomic or functional loss, depending upon common practice in that specialty. *Anatomic loss* refers to damage to the organ system or body structure, while *functional loss* refers to a change in function for the organ or body system. An example of an anatomic deviation is development of heart enlargement; functional loss includes a loss in ejection fraction or the ability of the heart to pump adequately. Anatomic loss receives greater emphasis in the musculoskeletal system, as in measurements such as range of motion. Functional considerations receive greater emphasis in the mental and behavioral section.

The impairment criteria outlined in the *Guides* provide a standardized method for physicians to use to determine medical impairment. The impairment criteria include diagnostic criteria, incorporating anatomic and functional measures. The impairment criteria were developed from scientific evidence as cited and from consensus of chapter authors or of medical specialty societies.

Impairment percentages or ratings developed by medical specialists are consensus-derived estimates that reflect the severity of the medical condition and the degree to which the impairment decreases an individual’s ability to perform common **activities of daily living (ADL)**, *excluding* work. Impairment ratings were designed to reflect functional limitations and not disability. The **whole person impairment percentages** listed in the *Guides* estimate the impact of the impairment on the individual’s overall ability to perform activities of daily living, *excluding work*, as listed in Table 1-2.



in Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) Scales ^{6,7}

Activity	Example
Self-care, personal hygiene	Urinating, defecating, brushing teeth, combing hair, bathing, dressing oneself, eating
Communication	Writing, typing, seeing, hearing, speaking
Physical activity	Standing, sitting, reclining, walking, climbing stairs
Sensory function	Hearing, seeing, tactile feeling, tasting, smelling
Nonspecialized hand activities	Grasping, lifting, tactile discrimination
Travel	Riding, driving, flying
Sexual function	Orgasm, ejaculation, lubrication, erection
Sleep	Restful, nocturnal sleep pattern

The medical judgment used to determine the original impairment percentages could not account for the diversity or complexity of work but could account for daily activities common to most people. Work is not included in the clinical judgment for impairment percentages for several reasons: (1) work involves many simple and complex activities; (2) work is highly individualized, making generalizations inaccurate; (3) impairment percentages are unchanged for stable conditions, but work and occupations change; and (4) impairments interact with such other factors as the worker's age, education, and prior work experience to determine the extent of work disability. For example, an individual who receives a 30% whole person impairment due to pericardial heart disease is considered from a clinical standpoint to have a 30% reduction in general functioning as represented by a decrease in the ability to perform activities of daily living. For individuals who work in sedentary jobs, there may be no decline in their work ability although their overall functioning is decreased. Thus, a 30% impairment rating does not correspond to a 30% reduction in work capability. Similarly, a manual laborer with this 30% impairment rating due to pericardial disease may be completely unable to do his or her regular job and, thus, may have a 100% work disability.

As a result, impairment ratings are not intended for use as direct determinants of work disability. When a physician is asked to evaluate work-related disability, it is appropriate for a physician knowledgeable about the work activities of the patient to discuss the specific activities the worker can and cannot do, given the permanent impairment.

Most impairment percentages in this fifth edition have been retained from the fourth edition because there are limited scientific data to support specific changes. It is recognized that there are limited data to support some of the previous impairment percentages as well. However, these ratings are currently accepted and should not be changed arbitrarily. In this edition, some percentages have been changed for greater scientific accuracy or to achieve consistency throughout the book.

A 0% whole person (WP) impairment rating is assigned to an individual with an impairment if the impairment has no significant organ or body system functional consequences and does not limit the performance of the common activities of daily living

indicated in Table 1-2. A 90% to 100% WP impairment indicates a very severe organ or body system impairment requiring the individual to be fully dependent on others for self-care, approaching death.

The activities of daily living, as originally developed for the *Guides* in the first and second editions,^{1,6} signify common activities currently represented in scales of Activities of Daily Living and Instrumental Activities of Daily Living.⁷ The *Guides* refers to common ADLs, as listed in Table 1-2. The ADLs listed in this table correspond to the activities that physicians should consider when establishing a permanent impairment rating. A physician can often assess a person's ability to perform ADLs based on knowledge of the patient's medical condition and clinical judgment. When the physician is estimating a permanent impairment rating, Table 1-2 can help to determine how significantly the impairment impacts these activities. Using the impairment criteria within a class and knowing the activities the individual can perform, the physician can estimate where the individual stands within that class.

There are many scales that measure ability to perform ADLs with greater degrees of accuracy. Many of these scales are concerned with more severe levels of disability, relevant to institutionalized patients and the elderly.⁷ During the 1970s, the ADL concept was extended to consider problems experienced by those living in the community, a field that has come to be termed Instrumental Activities of Daily Living (IADL).⁷ There is a continued effort to validate these scales; some of the more commonly utilized, validated IADL and ADL scales are listed in Table 1-3.⁷ Scales vary in their appropriateness for a given individual, based upon the level of impairment, body systems affected, and degree of accuracy required. Some scales are most appropriate for an active, working population; others are more suited to a chronically ill, disabled population. Since there is no agreed-upon scale for a working population and physicians who use the *Guides* may evaluate different populations of individuals (ie, healthy or chronically ill), a physician may choose the most appropriate of any of the validated scales for a more in-depth assessment of ADL, to obtain further information to supplement clinical judgment, or to gain assistance in determining where an individual stands within an impairment range.

EXHIBIT B

Webster's Medical Desk Dictionary



A Merriam-Webster®

MERRIAM-WEBSTER INC., *Publishers*
Springfield, Massachusetts, U.S.A.



A GENUINE MERRIAM-WEBSTER

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8910RRD9291

138 concuss • confluence of sinuses

con-cuss \kən-'kəs\ *vt* : to affect with concussion

con-cus-sion \kən-'kash-ən\ *n* 1 : a hard blow or collision 2 : a condition resulting from the stunning, damaging, or shattering effects of a hard blow; *esp* : a jarring injury of the brain resulting in disturbance of cerebral function and sometimes marked by permanent damage — **con-cus-sive** \-'kəs-iv\ *adj*

cond *abbr* condition

con-den-sa-tion \,kän-,den-'sä-shən, -dən-\ *n* 1 : the act or process of condensing: as **a** : a chemical reaction involving union between molecules often with elimination of a simple molecule (as water) to form a new more complex compound of often greater molecular weight **b** : a reduction to a denser form (as from steam to water) 2 : representation of several apparently discrete ideas by a single symbol *esp*. in dreams 3 : an abnormal hardening of an organ or tissue <connective tissue ~s>

con-dense \kən-'den(t)s\ *vb* **con-densed**; **con-dens-ing** *vt* : to make denser or more compact; *esp* : to subject to condensation ~ *vi* : to undergo condensation — **con-dens-able** \-'den(t)-sə-bəl\ *adj*

condensed milk *n* : evaporated milk with sugar added

con-dens-er \kən-'den(t)-sar\ *n* 1 **a** : a lens or mirror used to concentrate light on an object **b** : an apparatus in which gas or vapor is condensed 2 : CAPACITOR

con-di-ment \,kän-də-'ment\ *n* : something used to enhance the flavor of food; *esp* : a pungent seasoning — **con-di-men-tal** \,kän-də-'ment-l\ *adj*

1 con-di-tion \kən-'dish-ən\ *n* 1 : something essential to the appearance or occurrence of something else; *esp* : an environmental requirement <available oxygen is an essential ~ for animal life> 2 **a** : a usu. defective state of health <a serious heart ~> **b** : a state of physical fitness <exercising to get into ~>

2 condition *vt* **con-di-tioned**; **con-di-tion-ing** \-'dish-(ə)-niŋ\ : to cause to undergo a change so that an act or response previously associated with one stimulus becomes associated with another — **con-di-tion-able** \-(ə)-nə-bəl\ *adj*

con-di-tion-al \kən-'dish-nəl, -ən-l\ *adj* 1 **a** : CONDITIONED <~ reflex> <~ response> **b** : eliciting a conditional response <a ~ stimulus> 2 : permitting survival only under special growth or environmental conditions <~ lethal mutations> — **con-di-tion-al-ly** \-'dish-nə-lē, -ən-l-ē\ *adv*

con-di-tioned *adj* : determined or established by conditioning

con-dom \,kən-dəm, 'kän-\ *n* : a sheath commonly of rubber worn over the penis (as to prevent conception or venereal infection during coitus) — called also *sheath*

cond ref *abbr* conditioned reflex

cond resp *abbr* conditioned response

con-duct \kən-'dəkt *also* 'kän-,dəkt\ *vt* : to act as a medium for conveying ~ *vi* : to have the quality of transmitting something (as light, heat, sound, or electricity)

con-duc-tance \kən-'dək-tən(t)s\ *n* 1 : the power, readiness, or capacity to conduct something <neural ~> <changes in membrane ~ to ions> 2 : the reciprocal of electrical resistance

con-duc-tion \kən-'dək-shən\ *n* 1 : transmission through or by means of something (as a conductor) 2 : the transmission of excitation through living tissue and *esp*. nervous tissue <~ of impulses to the brain>

conduction deafness *n* : hearing loss or impairment resulting from interference with the transmission of sound waves to the organ of Corti — called also *conductive deafness*, *transmission deafness*; compare CENTRAL DEAFNESS, NERVE DEAFNESS

con-duc-tive \-'dək-tiv\ *adj* 1 : having the power to conduct 2 : caused by failure in the mechanisms for sound transmission in the external or middle ear <~ hearing loss>

con-duc-tiv-i-ty \,kän-,dək-'tiv-ət-ē, kən-\ *n*, *pl* -ties : the quality or power of conducting or transmitting: as **a** : the reciprocal of electrical resistivity **b** : the quality of living matter responsible for the transmission of and progressive reaction to stimuli

con-duc-to-met-ric or **con-duc-ti-met-ric** \kən-,dək-tə-'me-trik\ *adj* 1 : of or relating to the measurement of conductivity 2 : being or relating to titration based on determination of changes in the electrical conductivity of the solution

con-duc-tor \kən-'dək-tər\ *n* 1 : a substance or body capable of transmitting electricity, heat, or sound 2 : a bodily part (as a

nerve fiber) that transmits excitation — **con-duc-to-ri-al** \,kän-,dək-'tör-ē-əl, kən-, -'tör-\ *adj*

con-du-ran-gin \,kän-də-'ran-(g)ən, -'ran-jən\ *n* : a bitter poisonous yellowish glucoside obtained from condurango

con-du-ran-go \-'raŋ-(,)gō\ *n* : the dried bark of a So. American vine (*Marsdenia cundurango*) used as an alterative and stomachic — see CONDURANGIN

con-dy-lar \,kän-də-lər\ *adj* : of or relating to a condyle

con-dy-lar-thro-sis \,kän-də-lär-'thrō-səs\ *n*, *pl* -thro-ses \-,sēz\ : articulation by means of a condyle (as that between the head and vertebral column involving the occipital condyles and the atlas)

con-dyle \,kän-,dil *also* -d'l\ *n* : an articular prominence of a bone; *esp* : either of a pair resembling knuckles — see LATERAL CONDYLE, MEDIAL CONDYLE

con-dyl-ec-to-my \,kän-,dī-'lek-tə-mē, -d'l-'ek-\ *n*, *pl* -mies : surgical removal of a condyle

con-dyl-i-on \kən-'dil-ē-ən, kən-\ *n* : the lateral tip of the condyle of the lower jaw

con-dy-loid \,kän-də-,lōid\ *adj* : shaped like or situated near a condyle : relating to a condyle

condyloid foramen *n* : a foramen in front of each condyle of the occipital bone

condyloid joint *n* : an articulation (as that between the metacarpals of the hand and the first phalanx of the fingers) in which an ovoid head is received into an elliptical cavity permitting all movements except axial rotation

condyloid process *n* : the rounded process by which the ramus of the mandible articulates with the temporal bone

con-dy-lo-ma \,kän-də-'lō-mə\ *n*, *pl* -ma-ta \-mə-tə\ *also* -mas : CONDYLOMA ACUMINATUM — **con-dy-lo-ma-tous** \-mə-təs\ *adj*

condyloma acu-mi-na-tum \-ə-,kyū-mə-'nāt-əm\ *n*, *pl* condylomata acu-mi-na-ta \-'nāt-ə\ : a warty growth on the skin or adjoining mucous membrane usu. near the anus and genital organs — called also *genital wart*, *venereal wart*

cone \,kōn\ *n* 1 : a solid having a circular base and sides that slope evenly to a point 2 **a** : one of the short sensory end organs of the vertebrate retina that function in color vision **b** : any of numerous somewhat conical tropical gastropod mollusks (family Conidae) that include a few highly poisonous forms — see CONUS 3 : a cusp of a tooth *esp*. in the upper jaw

cone-nose \,kōn-,nōz\ *n* : any of various large bloodsucking reduviid bugs *esp*. of the genus *Triatoma* including some capable of inflicting painful bites — called also *kissing bug*; compare ASSASSIN BUG

conf *abbr* conference

con-fab-u-la-tion \kən-,fab-yə-'lä-shən, kən-\ *n* : a filling in of gaps in memory by free fabrication (as in Korsakoff's psychosis) — **con-fab-u-late** \kən-'fab-yə-,lāt\ *vi* -lat-ed; -lat-ing — **con-fab-u-la-to-ry** \-yə-lə-,tōr-ē, -,tōr-\ *adj*

con-fec-tio \kən-'fek-shē-,ō, -'fek-tē-\ *n*, *pl* -ti-ō-nes \-,fek-shē-'ō-,nēz, -,fek-tē-'ō-,nās\ : CONFECTION

con-fec-tion \kən-'fek-shən\ *n* : a medicinal preparation usu made with sugar, syrup, or honey — called also *electuary*

con-fig-u-ra-tion \kən-,fig-(y)ə-'rā-shən, kən-\ *n* 1 **a** : relative arrangement of parts or elements **b** : the stable structural makeup of a chemical compound *esp*. with reference to the space relations of the constituent atoms 2 : GESTALT <personality ~> — **con-fig-u-ra-tion-al** \-shnəl, -shən-l\ *adj* — **con-fig-u-ra-tion-al-ly** \-ē\ *adv* — **con-fig-u-ra-tive** \-'fig-(y)ə-rət-iv\ *adj*

con-fine \kən-'fin\ *vt* **con-fined**; **con-fin-ing** : to keep from leaving accustomed quarters (as one's room or bed) under pressure of infirmity, childbirth, or detention

con-fined \kən-'find\ *adj* : undergoing childbirth

con-fine-ment \kən-'fin-mənt\ *n* : an act of confining : the state of being confined; *esp* : LYING-IN

con-flict \,kän-,flikt\ *n* : mental struggle resulting from incompatible or opposing needs, drives, wishes, or external or internal demands — **con-flict-ful** \,kän-,flikt-fəl\ *adj* — **con-flict-less** \,kän-,flik-tləs\ *adj* — **con-flic-tu-al** \,kän-'flik-ch-(ə-w)əl, kən-\ *adj*

con-flu-ence of sinuses \,kän-,flū-ən(t)s-, kən-'flū-\ *n* : the

handed but trained to use the right hand in writing —
dex-tro-si-nis-tral-ly \-ē\ *adv*
dextrous *var of* DEXTEROUS
dex-tro-ver-sion \ˈdek-strə-vər-zhən, -shən\ *n* : movement or turning to the right (as of the eyes)
DFF \dē-ef-ˈpē\ *n* : DIISOPROPYL FLUOROPHOSPHATE
dg *abbr* decigram
DHPG \ˈdē-ˈäch-ˈpē-jē\ *n* : an antiviral drug that is an analogue of guanosine
DI *abbr* diabetes insipidus
dia *abbr* 1 diameter 2 diathermy
di-a-be-tes \dī-ə-ˈbēt-ēz, -ˈbēt-əs\ *n, pl diabetes* : any of various abnormal conditions characterized by the secretion and excretion of excessive amounts of urine; *esp* : DIABETES MELLITUS
diabetes in-sip-i-dus \-in-ˈsip-əd-əs\ *n* : a disorder of the pituitary gland characterized by intense thirst and by the excretion of large amounts of urine
diabetes mel-li-tus \-ˈmel-ət-əs\ *n* : a familial constitutional disorder of carbohydrate metabolism characterized by inadequate secretion or utilization of insulin, by excessive urine production, by excessive amounts of sugar in the blood and urine, and by thirst, hunger, and loss of weight
di-a-bet-ic \dī-ə-ˈbet-ik\ *adj* 1 : of or relating to diabetes or diabetics <~ research> 2 : affected with diabetes 3 : occurring in or caused by diabetes <~ gangrene> <~ sugar> <~ coma> 4 : suitable for diabetics <~ food>
diabetic *n* : a person affected with diabetes
di-a-be-to-gen-ic \dī-ə-ˈbēt-ə-ˈjen-ik\ *adj* : producing diabetes <growth hormone tends to have a ~ effect>
di-ac-e-tate \dī-ˈas-ə-ˈtāt\ *n* 1 : an acid derivative (as a salt or ester) containing two acetate groups <ethylene ~> 2 : ACETOACETATE
di-ac-e-tic acid \dī-ə-ˈsēt-ik-\\ *n* : ACETOACETIC ACID
di-ac-e-tin \dī-ˈas-ət-ən\ *n* : ACETIN b
di-ac-e-tyl \dī-ə-ˈsēt-əl, dī-ˈas-ət-əl\ *adj* : containing two acetyl groups
diacetyl *n* : a greenish yellow liquid compound (CH₃CO)₂ with an odor like that of quinone that is chiefly responsible for the odor of butter, contributes to the aroma of coffee and tobacco, and is used as a flavoring agent in foods (as margarine) — called also *biacetyl*
di-ac-e-tyl-mor-phine \-ˈmôr-fēn\ *n* : HEROIN
di-ac-id \dī-ˈas-əd\ or **di-acid-ic** \dī-ə-ˈsid-ik\ *adj* 1 : able to react with two molecules of a monobasic acid or one of a dibasic acid to form a salt or ester — used *esp.* of bases 2 : containing two replaceable hydrogen atoms — used *esp.* of acid salts
diacid *n* : an acid with two acid hydrogen atoms
diad *var of* DYAD
dia-der-mal \dī-ə-ˈdər-məl\ or **dia-der-mat-ic** \-dər-ˈmat-ik\ or **dia-der-mic** \-dər-mik\ *adj* : acting through the skin <~ allergy> <a ~ ointment>
di-a-do-cho-ki-ne-sia or **di-a-do-ko-ki-ne-sia** \dī-əd-ə-kō-kə-ˈnē-zh(ē)-ə, dī-ə-dō-(,)kō-, -kī-ˈnē-\\ *n* : the normal power of alternating diametrically opposite muscular actions (as flexion and extension of a limb) — **di-a-do-cho-ki-net-ic** or **di-a-do-ko-ki-net-ic** \-kə-ˈnet-ik, -kī-ˈnet-\\ *adj*
di-a-do-cho-ki-ne-sis \-kə-ˈnē-səs, -kī-\\ *n, pl -ne-ses* \-,sēz\ : DIADYCHOKINESIA
di-ag-nose \ˈdī-ig-nōs, -,nōz, ˈdī-ig-, -əg-\\ *vb -nosed; -nos-ing vt* 1 : to recognize (as a disease) by signs and symptoms 2 : to diagnose a disease or condition in <the patient had diagnosed herself accurately> ~ *vi* : to make a diagnosis — **di-ag-nos-able** also **di-ag-nose-able** \dī-ig-nō-sə-bəl, -əg-, -zə-\\ *adj*
di-ag-no-sis \dī-ig-nō-səs, -əg-\\ *n, pl -no-ses* \-,sēz\ 1 *a* : the art or act of identifying a disease from its signs and symptoms *b* : the decision reached by diagnosis <a ~ of pneumonia> 2 : a concise technical description of a taxon
diagnosis related group *n* : DRG
di-ag-nos-tic \-ˈnās-tik\ also **di-ag-nos-ti-cal** \-ti-kəl\ *adj* 1 : of, relating to, or used in diagnosis 2 : using the methods of or yielding a diagnosis <a ~ service> <~ properties> — **di-ag-nos-ti-cal-ly** \-ti-k(ə)-lē\ *adv*

diagnostic *n* : the art or practice of diagnosis — often used in *pl.*
di-ag-nos-ti-cian \-(,)nās-ˈtish-ən\ *n* : a specialist in medical diagnostics
di-a-ki-ne-sis \dī-ə-kə-ˈnē-səs, -(,)kī-\\ *n, pl -ne-ses* \-,sēz\ : the final stage of the meiotic prophase marked by contraction of the bivalents — **di-a-ki-net-ic** \-ˈnet-ik\ *adj*
Dia-lis-ter \dī-ə-ˈlis-tər\ *n* : a genus of minute gram-negative parasitic strictly anaerobic bacteria of the family Bacteroidaceae that grow only in fresh sterile tissue or ascitic fluid and comprise cells occurring singly, in pairs, or in short chains
di-al-lel \ˈdī-ə-lel\ *adj* : relating to or being the crossing of each of several individuals with two or more others in order to determine the relative genetic contribution of each parent to specific characters in the offspring
di-al-yl \dī-ˈal-əl\ *adj* : containing two allyl groups
di-al-yl-bar-bi-tu-ric acid \dī-ˈal-əl-bär-bə-(y)ür-ik-\\ *n* : a white crystalline compound C₁₀H₁₂N₂O₃ used as a sedative and hypnotic — called also *allobarbitol*
di-al-y-sance \dī-ˈal-ə-sən(t)s\ *n* : blood volume in milliliters per unit time cleared of a substance by dialysis (as by an artificial kidney)
di-al-y-sate \dī-ˈal-ə-zāt, -,sāt\ or **di-al-y-zate** \-,zāt\ *n* 1 : the material that passes through the membrane in dialysis — called also *diffusate* 2 : the liquid into which material passes by way of the membrane in dialysis — called also *diffusate*
di-al-y-sis \dī-ˈal-ə-səs\ *n, pl -y-ses* \-,sēz\ : the separation of substances in solution by means of their unequal diffusion through semipermeable membranes; *esp* : such a separation of colloids from soluble substances — **di-a-lyt-ic** \dī-ə-ˈlit-ik\ *adj*
di-a-lyz-able or **Brit di-a-lys-able** \dī-ə-ˈli-zə-bəl\ *adj* : capable of being dialyzed or of dialyzing; *esp* : capable of diffusing through a dialyzing membrane — **di-a-lyz-abil-i-ty** or **Brit di-a-lys-abil-i-ty** \dī-ə-ˈli-zə-ˈbil-ət-ē\ *n, pl -ties*
di-a-lyze or **Brit di-a-lyse** \dī-ə-ˈliz-\\ *vb -lyzed or Brit -lysed; -lyz-ing or Brit -lys-ing vt* : to subject to dialysis : separate or obtain by dialysis ~ *vi* : to undergo dialysis : diffuse through a suitable membrane
di-a-lyz-er or **Brit di-a-lys-er** \-ˈli-zər\ *n* : an apparatus in which dialysis is carried out consisting essentially of one or more containers for liquids separated into compartments by membranes
diam *abbr* diameter
di-am-e-ter \dī-ˈam-ət-ər\ *n* 1 : a unit of magnification of observations with a magnifying device equal to the number of times the linear dimensions of the object are increased <a microscope magnifying 60 ~s> 2 : one of the maximal breadths of a part of the body <the transverse ~ of the inlet of the pelvis>
di-amide \ˈdī-ə-mīd, dī-ˈam-əd\ *n* : a compound containing two amido groups
di-am-i-dine \dī-ˈam-ə-dēn, -dən\ *n* : any of a group of compounds containing two of the groups —C(=NH)NH₂
di-amine \ˈdī-ə-mēn, dī-ˈam-ən\ *n* : a compound containing two amino groups
diamine oxidase *n* : HISTAMINASE
di-ami-no \dī-ə-ˈmē-(,)nō\ *adj* : relating to or containing two amino or substituted amino groups
di-ami-no-di-phe-nyl sulfone or chiefly **Brit di-ami-no-di-phe-nyl sulphone** \dī-ə-mē-(,)nō-,dī-fen-ˈl-, -,fēn-\\ *n* : DAPSONE
di-a-mond-back rattlesnake \ˈdī-ə-mən(d)-ˈbak-\\ *n* : a large and deadly rattlesnake of the genus *Crotalus* (*C. adamanteus*) of the southern U.S. — called also *diamondback*, *diamond-back rattler*
di-a-mor-phine \dī-ə-ˈmôr-fēn\ *n* : HEROIN
di-a-pause \ˈdī-ə-pôz\ *n* : a period of physiologically enforced dormancy between periods of activity
di-a-paus-ing \-,pô-ziŋ\ *adj* : undergoing diapause
di-a-pe-de-sis \dī-ə-pə-ˈdē-səs\ *n, pl -de-ses* \-,sēz\ : the passage of blood cells through capillary walls into the tissues —

ə\abut \ə\kitten \ər\farther \ə\ash \ā\ace \ā\cot, cart \au\out \ch\chin \e\bet \ē\easy \g\go \i\hit \i\ice \j\job \ŋ\sing \ō\go \ō\law \oi\boy \th\thin \th\the \ü\loot \ü\foot \y\yet \zh\vision see also Pronunciation Symbols page

dip-stick \ˈdɪp-ˌstɪk\ *n* : a chemically sensitive strip of cellulose used to identify the constituents (as glucose) of urine by immersion

di-tera \ˈdɪp-t(ə-)rə\ *n pl* : a large order of winged or rarely wingless insects that have the anterior wings usu. functional and the posterior pair reduced to small club-shaped structures and include the true flies (as the housefly, mosquitoes, midges, and gnats) — **di-ter-an** \-t(ə-)rən\ *n or adj*

Dip-ter-yx \ˈdɪp-tə-(r)iks\ *n* : a small genus of tropical American trees of the family Leguminosae having opposite pinnate leaves and including several whose seeds are a source of coumarin — see TONKA BEAN

di-pus \ˈdɪ-pəs\ *n* : a fetal monster with duplication of the upper parts but only two feet

di-py-gus \('dɪ-ˈpɪ-gəs, ˈdɪp-ə-gəs\ *n, pl di-py-gi* \-,gɪ\ : a fetal monster marked by double pelvis, genitals, and extremities

di-py-li-di-a-sis \,dɪ-,pɪ-lə-ˈdɪ-ə-səs\ *n, pl -a-ses* \-,sēz\ : infestation with the dog tapeworm (*Dipylidium caninum*)

Di-py-lid-i-um \,dɪ-,pɪ-ˈlɪd-ē-əm, -pə-\ *n* : a genus of taeniod tapeworms including the common dog tapeworm (*D. caninum*) that is a cosmopolitan parasite of dogs, cats, and other carnivores and occas. infests man

di-pyr-i-dam-ole \('dɪ-,pɪr-ə-ˈdam-ol, -dɪ-\ *n* : a drug $C_{10}H_{16}N_2O_4$ used as a coronary vasodilator — see PERSANTINE

direct cell division *n* : AMITOSIS

direct current *n* : an electric current flowing in one direction only and substantially constant in value — abbr. DC

di-rec-tive \dɪ-ˈrek-tɪv, dɪ-\ *adj* : of or relating to psychotherapy or counseling in which the counselor introduces information, content, or attitudes not previously expressed by the client

di-rec-tor \dɪ-ˈrek-tər, dɪ-\ *n* : an instrument grooved to guide and limit the motion of a surgical knife

direct pyramidal tract *n* : VENTRAL CORTICOSPINAL TRACT

di-rhin-ic \('dɪ-ˈrɪn-ɪk, -ˈrɪn-\ *adj* : affecting both nostrils alike

Di-ro-fi-lar-ia \,dɪ-(r)ɪ-ˈfə-lar-ē-ə\ *n* : a genus of filarial worms of the family Dipetalonematidae that includes the heartworm (*D. immitis*) — **di-ro-fi-lar-i-al** \-ē-əl\ *adj*

di-ro-fi-lar-i-a-sis \,dɪ-,fɪ-lə-ˈrɪ-ə-səs\ *n, pl -a-ses* \-,sēz\ : infestation with filarial worms of the genus *Dirofilaria* and esp. with the heartworm (*D. immitis*)

dirty \ˈdɜrt-ē\ *adj* dirt-er; -est : contaminated with infecting organisms (< wounds)

dis *abbr* 1 disabled 2 disease

dis-abil-ty \,dɪs-ə-ˈbɪl-ət-ē\ *n, pl -ties* 1 : the condition of being disabled 2 : inability to pursue an occupation because of physical or mental impairment

dis-able \dɪs-ˈā-bəl, dɪz-\ *vt* dis-abled; dis-abling \-b(ə-)lɪŋ\ : to deprive of a mental or physical capacity

dis-abled *adj* : incapacitated by illness, injury, or wounds

dis-able-ment \-mənt\ *n* : the act of becoming disabled to the extent that full wages cannot be earned; also : the state of being so disabled

di-sac-char-i-dase \('dɪ-ˈsək-ə-rə-dās, -dāz\ *n* : an enzyme (as maltase or lactase) that hydrolyzes disaccharides

di-sac-char-ide \('dɪ-ˈsək-ə-,rɪd\ *n* : any of a class of sugars (as sucrose) that on hydrolysis yields two monosaccharide molecules — called also *biose, double sugar*

dis-ag-gre-gate \('dɪs-ˈag-ri-,gāt\ *vt* -gat-ed; -gat-ing : to separate into component parts (< polyribosomes obtained from the brain) ~ *vi* : to break up or apart (< the molecules of a gel ~ to form a sol) — **dis-ag-gre-ga-tion** \,dɪs-,ag-ri-ˈgā-shən\ *n*

dis-ar-tic-u-la-tion \,dɪs-är-,tik-yə-ˈlā-shən\ *n* : separation or amputation of a body part at a joint (< of the shoulder) (< of skeletal remains) — **dis-ar-tic-u-late** \-ˈtik-yə-,lāt\ *vb* -lat-ed; -lat-ing

dis-as-sim-i-late \,dɪs-ə-ˈsɪm-ə-,lāt\ *vt* -lat-ed; -lat-ing : to subject to catabolism — **dis-as-sim-i-la-tion** \-,sɪm-ə-ˈlā-shən\ *n* — **dis-as-sim-i-la-tive** \-ˈsɪm-ə-,lāt-ɪv\ *adj*

dis-azo \dɪs-ˈaz-ō\ *adj* : containing two azo groups in a molecule (< dyes)

disc *var of* DISK

disch *abbr* discharge; discharged

dis-charge \dɪs(h)-ˈchärj, ˈdɪs(h)-\ *vb* dis-charged; dis-

charg-ing *vt* 1 : to release from confinement, custody, or care (< a patient from the hospital) 2 *a* : to give outlet to or emit (< a boil *discharging* pus) *b* : to release or give expression to (a pent-up emotion or a repressed impulse) (< into her diary she *discharged* her fury and brooding loneliness) ~ *vi* : to pour forth fluid or other contents

dis-charge \ˈdɪs(h)-ˈchärj, dɪs(h)-\ *n* 1 : the act of relieving of something (< of a repressed impulse) 2 : release from confinement, custody, or care (< returned to work the day after ~ from the hospital) 3 : something that is emitted or evacuated (< a purulent ~ from a wound)

disci *pl of* DISCUS

dis-ci-form \ˈdɪs-(k)ə-,förm\ *adj* : round or oval in shape

dis-cis-sion \dɪ-ˈsɪsh-ən, -ˈsɪzh-\ *n* : an incision (as in treating cataract) of the capsule of the lens of the eye

dis-clos-ing \dɪs-ˈklō-zɪŋ\ *adj* : being or using an agent (as a tablet or liquid) that contains a usu. red dye that adheres to and stains dental plaque

dis-co-blas-tic \,dɪs-kō-ˈblas-tɪk\ *adj* : MEROBLASTIC

dis-co-blas-tu-la \-ˈblas-čə-lə\ *n, pl -las or -lae* \-(,l)ē, -lɪ\ : BLASTODERM

dis-co-gas-tru-la \-ˈgas-trə-lə\ *n, pl -las or -lae* \-(,l)ē, -lɪ\ : a gastrula derived from a blastoderm

discogram, discography *var of* DISKOGRAM, DISKOGRAPHY

dis-coid \ˈdɪs-,kōɪd\ *adj* 1 : resembling a disk : being flat and circular (< the red blood cell is a biconcave ~ body) 2 : characterized by macules (< ~ lupus erythematosus)

discoid *n* : an instrument with a disk-shaped blade used in dentistry for carving

dis-coi-dal \ˈdɪs-,kōɪd-əl\ *adj* : of, resembling, or producing a disk; esp : having the villi restricted to one or more disklike areas

discoidal cleavage *n* : meroblastic cleavage in which a disk of cells is produced at the animal pole of the zygote (as in bird eggs)

discontinuous phase *n* : DISPERSED PHASE

dis-cop-a-thy \ˈdɪs-ˈkəp-ə-thē\ *n, pl -thies* : any disease affecting an intervertebral disk

dis-co-pla-cen-ta \,dɪs-kō-plə-ˈsent-ə\ *n* : a discoidal placenta

dis-cor-dant \ˈdɪs-,kōrd-ənt\ *adj, of* twins : dissimilar with respect to one or more particular characters — compare CONCORDANT — **dis-cor-dance** \-ənt(t)s\ *n*

dis-crete \ˈdɪs-,krēt, ˈdɪs-\ *adj* : characterized by distinct unconnected lesions (< ~ smallpox) — compare CONFLUENT 2

dis-crim-i-nate \ˈdɪs-,krɪm-ə-,nāt\ *vb* -nat-ed; -nat-ing *vt* : to respond selectively to (a stimulus) ~ *vi* : to respond selectively (< the capacity of organisms to ~ — J. A. Swets)

dis-crim-i-na-tion \ˈdɪs-,krɪm-ə-ˈnā-shən\ *n* : the process by which two stimuli differing in some aspect are responded to differently : DIFFERENTIATION

dis-cus \ˈdɪs-kəs\ *n, pl dis-cl* \-,kɪ, -kē\ : any of various rounded and flattened anatomical structures

discus pro-lig-er-us \-prō-ˈlɪj-(ə-)rəs\ *n* : CUMULUS

dis-ease \dɪz-ˈēz\ *n* : an impairment of the normal state of the living animal or plant body or of any of its components that interrupts or modifies the performance of the vital functions and is a response to environmental factors (as malnutrition, industrial hazards, or climate), to specific infective agents (as worms, bacteria, or viruses), to inherent defects of the organism (as various genetic anomalies), or to combinations of these factors : SICKNESS, ILLNESS — called also *morbus* — **dis-eased** \-ˈēzd\ *adj*

dis-equi-lib-ri-um \,dɪs-,ē-kwə-ˈlɪb-rē-əm, -ek-wə-\ *n, pl -ri-ums or -ria* : loss or lack of equilibrium (< ionic ~ in a resting nerve cell) (< emotional ~)

dysfunction *var of* DYSFUNCTION

disgenic *var of* DYSGENIC

dis-ha-bit-u-a-tion \,dɪs-hə-,bɪch-ə-ˈwā-shən\ *n* : restoration to full strength of a response that has become weakened by habituation — **dis-ha-bit-u-ate** \-ˈbɪch-ə-,wāt\ *vb* -at-ed; -at-ing

dis-har-mo-ny \('dɪs-ˈhär-mə-nē\ *n, pl -nies* : lack of harmony — see OCCLUSAL DISHARMONY

\ə\abut \ə\kitten \ər\farther \ə\ash \ä\ace \ä\cot, cart
 \au\out \ch\chin \e\bet \ē\easy \g\go \i\hit \i\kce \j\job
 \ŋ\sing \o\go \ó\law \ói\boy \th\thin \th\the \ü\foot
 \ü\foot \y\yet \zh\vision see also Pronunciation Symbols page

range animals when ingested by eating some plants growing in soils in which it occurs in quantity, and occurs in allotropic forms of which a gray stable form varies in electrical conductivity with the intensity of its illumination and is used in electronic devices — symbol *Se*; see **ELEMENT** table

selenium sulfide *n*: the disulfide SeS_2 of selenium usu. in the form of an orange powder that is effective in controlling seborrheic dermatitis and dandruff

se-len-odont \sə-'lē-nə-'dānt, sə-'len-ə- \ *adj*: of, relating to, characteristic of, or being molar teeth with crescentic ridges on the crown <the ~ teeth of sheep>

sel-e-no-sis \,sel-ə-'nō-səs \ *n*: poisoning of livestock by selenium due to ingestion of plants grown in seleniferous soils characterized in the acute phase by diffuse necrosis and hemorrhage resulting from capillary damage and in chronic poisoning by degenerative and fibrotic changes esp. of the liver and of the skin and its derivatives — called also *alkali disease*; see **BLIND STAGGERS**

self \self \ *n*, *pl* **selves** \selfz \: the union of elements (as body, emotions, thoughts, and sensations) that constitute the individuality and identity of a person

self-abuse \self-ə-'byūs \ *n*: **MASTURBATION**

self-ac-tu-al-ize also *Brit* **self-ac-tu-al-ise** \self-'ak-ch(ə-w)-ə-'līz \ *vi* -ized also *Brit* -ised; -iz-ing also *Brit* -is-ing: to realize fully one's potential — **self-ac-tu-al-iza-tion** also *Brit* **self-ac-tu-al-iza-tion** \,ak-ch(ə-w)-ə-lə-'zā-shən \ *n*

self-ad-min-is-tered \self-'ad-min-ə-'stərd \ *adj*: administered by oneself <~ analgesia>

self-anal-y-sis \self-'nal-ə-'səs \ *n*, *pl* -yses \-,sēz \ *n*: a systematic attempt by an individual to understand his own personality without the aid of another person — **self-an-a-lyt-ic-al** \,an-ə-'lit-i-kəl \ or **self-an-a-lyt-ic** \-ik \ *adj*

self-as-sem-bly \self-'sem-blē \ *n*, *pl* -blies: the process by which a complex macromolecule (as collagen) or a supramolecular system (as a virus) spontaneously assembles itself from its components

self-aware \self-'we(ə)r \ *adj*: characterized by self-awareness
self-aware-ness *n*: an awareness of one's own personality or individuality

self-care \self-'ke(ə)r \ *n*: care for oneself: **SELF-TREATMENT**

self-con-cept \self-'kän-'sept \ *n*: the mental image one has of oneself

self-de-struc-tion \di-'strək-shən \ *n*: destruction of oneself; esp.: **SUICIDE**

self-de-struc-tive \self-'strək-tiv \ *adj*: acting or tending to harm or destroy oneself <~ behavior>; also: **SUICIDAL** — **self-de-struc-tive-ly** *adv* — **self-de-struc-tive-ness** *n*

self-dif-fer-en-ti-a-tion \,dif-ə-'ren-chē-'ā-shən \ *n*: differentiation of a structure or tissue due to factors existent in itself and essentially independent of other parts of the developing organism

self-di-ges-tion \self-(,dī-'jes(h)-chən, -də- \ *n*: **AUTOLYSIS**

self-ex-am-i-na-tion \ig-'zām-ə-'nā-shən \ *n*: examination of oneself <regular ~ for early detection of breast cancer>

self-fer-til-iza-tion \self-'fərt-'l-ə-'zā-shən \ *n*: fertilization effected by union of ova with pollen or sperm from the same individual

self-fer-til-ized \self-'fərt-'l-'īzd \ *adj*: fertilized by one's own pollen or sperm

self-hyp-no-sis \self-(h)ip-'nō-səs \ *n*, *pl* -no-ses \-,sēz \: hypnosis of oneself: **AUTOHYPNOSIS**

self-im-age \self-'im-ij \ *n*: one's conception of oneself or of one's role

self-in-duced \in-'d(y)üst \ *adj*: induced by oneself <a ~ abortion>

self-in-duc-tance \in-'dək-tən(t)s \ *n*: inductance that induces an electromotive force in the same circuit as the one in which the current varies

self-in-flict-ed \in-'flik-təd \ *adj*: inflicted by oneself <a ~ wound>

self-lim-it-ed \self-'lim-ət-əd \ *adj*: limited by one's or its own nature; *specif*: running a definite and limited course <the disease is ~, and the prognosis is good — *Science*>

self-lim-it-ing \self-'līm-īŋ \ *adj*: **SELF-LIMITED** <a ~ disease>

self-med-i-ca-tion \self-'med-ə-'kā-shən \ *n*: medication of oneself: **SELF-TREATMENT** <~ with nonprescription drugs>

self-mu-ti-la-tion \self-'myüt-ə-'lā-shən \ *n*: injury or disfigurement of oneself <~ associated with the Lesch-Nyhan syndrome>

self-pun-ish-ment \self-'pən-ish-mənt \ *n*: punishment of oneself <masochistic ~>

self-rec-og-ni-tion \self-'rek-əg-'nish-ən \ *n*: the process by which the immune system of an organism learns to distinguish between the body's own chemicals, cells, and tissues and intruders from the outside — compare **SELF-TOLERANCE**

self-rep-li-cat-ing \self-'rep-lə-'kāt-īŋ \ *adj*: reproducing itself autonomously <DNA is a ~ molecule> — **self-rep-li-ca-tion** \self-'rep-lə-'kā-shən \ *n*

self-stim-u-la-tion \self-'stim-yə-'lā-shən \ *n*: stimulation of oneself as a result of one's own activity or behavior <electrical ~ of the brain in rats> — **self-stim-u-la-to-ry** \self-'stim-yə-lə-'tōr-ē-, -tōr- \ *adj*

self-tol-er-ance \self-'tāl(-ə)-rən(t)s \ *n*: the physiological state that exists in an organism when its immune system has learned not to attack and destroy its own bodily constituents — called also *horror autotoxicus*; compare **SELF-RECOGNITION**

self-treat-ment \self-'trēt-mənt \ *n*: medication of oneself or treatment of one's own disease without medical supervision or prescription

sel-la \se-'lə \ *n*, *pl* **sellas** or **sel-lae** \-lē \: **SELLA TURCICA**

sel-lar \sel-'ər, -ār \ *adj*: of, relating to, or involving the sella turcica <the ~ region>

sella tur-ci-ca \-tər-ki-kə, -si- \ *n*, *pl* **sellae tur-ci-cae** \-ki-, kī-, -si-, sē \: a depression in the middle line of the upper surface of the sphenoid bone in which the pituitary gland is lodged

selves *pl* of **SELF**

SEM *abbr* 1 scanning electron microscope 2 scanning electron microscopy

se-man-tic aphasia \si-'man-tik- \ *n*: aphasia characterized by the loss of recognition of the meaning of words and phrases

se-man-tics \si-'mant-iks \ *n* *pl* but *sing* or *pl* in *constr*: the study of meanings: **a**: the historical and psychological study and the classification of changes in the signification of words or forms viewed as factors in linguistic development **b** (1): **SEMIOTIC** (2): a branch of semiotic dealing with the relations between signs and what they refer to and including theories of denotation, extension, naming, and truth

semeiology *var* of **SEMIOLGY**

se-mei-ot-ic \sem-i-'āt-ik, -sē-mī- \ *adj*: of or relating to symptoms of disease

se-men \sē-'mən \ *n*: a viscid whitish fluid of the male reproductive tract consisting of spermatozoa suspended in secretions of the accessory glands and esp. of the prostate and Cowper's glands

semi-car-ba-zide \sem-i-'kār-bə-'zīd \ *n*: a crystalline compound $\text{CH}_3\text{N}_3\text{O}$ that is used chiefly as a reagent for aldehydes and ketones

semi-car-ba-zone \-kār-bə-'zōn \ *n*: any of a class of usu. well-crystallized compounds having the general formula $\text{RR}'\text{C}=\text{NNHCONH}_2$ and formed by the action of semicarbazide on an aldehyde or ketone

semi-car-ti-lag-i-nous \-,kärt-'l-'aj-ə-nəs \ *adj*: consisting partly of cartilaginous tissue

semi-cir-cu-lar canal \,sər-'kyə-lər- \ *n*: any of the loop-shaped tubular parts of the labyrinth of the ear that together constitute a sensory organ associated with the maintenance of bodily equilibrium, that consist of an inner membranous canal of the membranous labyrinth and a corresponding outer bony canal of the bony labyrinth, and that in all vertebrates above cyclostomes form a group of three in each ear usu. in planes nearly at right angles to each other — see **SEMICIRCULAR DUCT**

semicircular duct *n*: any of the three loop-shaped membranous inner tubular parts of the semicircular canals that are about one-fourth the diameter of the corresponding outer bony canals, that

\ə\abut \ə\kitten \ər\farther \ə\ash \ə\ace \ə\cot, cart
\a\out \ch\chin \e\bet \ē\easy \g\go \i\hit \i\ice \j\job
\ŋ\sing \ō\go \ó\law \ói\boy \th\thin \th\the \ü\loot
\ü\foot \y\yet \zh\vision see also Pronunciation Symbols page