

words, the attack or onset is the way in which the vowel is started in your throat and mouth.

**RULE** All vowels should be initiated with breath pulses or breath lifts, rather than by glottal attacks.

When glottal attacks occur, the breath below the opening of the vocal folds does not escape evenly because of tension at the vocal folds. Most English speakers initiate all words beginning with a vowel with a glottal attack. To isolate the feeling of the tension of the glottal attack, bring the vocal folds together as though beginning to cough. Habitual use of harsh glottal attacks may lead to severe vocal problems. In singing, the glottal attack should be used rarely and purposefully with great caution.

In order to give stress to key words that begin with vowel sounds, *breath lifts* may be used to effectively separate the stressed word from the word that precedes it. A breath lift requires a tuck in at the diaphragm that results in the release of a small jet of air helping to initiate the separated vowel. One way to easily find the sensation of the breath lift is to insert the [h] consonant before initial vowels. For example, “earth” would be sounded as “h-earth.”

Of course, starting vowels with a breathy [h] sound is not the ultimate goal. But we do want to initiate vowels with the sensation of the release of breath that accompanies the beginning of phonation. For now, however, we need to insert the [h] in order to break the ingrained habit of harsh glottal attacks.

**RULE** Break the legato line and use a breath lift only when a primary stressed word begins with a vowel. Do not break the legato line with a breath lift on unstressed words, such as prepositions, conjunctions or pronouns that begin with a vowel.

EXAMPLES    Break:            My [ˈ]only hope       Her languid [ˈ]eyes  
                   Connect:        Getting → and spending we lay waste → our powers

Moderato (♩ = 104)  
*mp*

As they low-ered the bright 'awn - ing At the 'out- door ca - fé —

("Early in the Morning," Ned Rorem)

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## EXERCISE DRILLS FOR GLOTTAL ATTACK ELIMINATION

1. Count slowly to twenty. Concentrate on beginning number 8 and number 18 with breath lifts rather than glottal attacks.



2. Read across the columns, adding a glottal attack [ʔ] to the first column and an <sup>[h]</sup> to the words in the second column. Then try to duplicate the sensation of vocal relaxation in the third column, silencing the <sup>[h]</sup> and instead using a breath lift [ˊ].

ʔ aim	<sup>[h]</sup> aim	ˊaim
ʔ owe	<sup>[h]</sup> owe	ˊowe
ʔ unto	<sup>[h]</sup> unto	ˊunto
ʔ out	<sup>[h]</sup> out	ˊout
ʔ eye	<sup>[h]</sup> eye	ˊeye
ʔ under	<sup>[h]</sup> under	ˊunder
ʔ awful	<sup>[h]</sup> awful	ˊawful
ʔ always	<sup>[h]</sup> always	ˊalways

[ʔ] = glottal attack

[ˊ] = breath lift

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## EASY ONSET EXERCISES

In the field of speech therapy, glottal attacks are referred to as *hard onsets*. In other words, when you start a vowel with a glottal attack you have a *hard onset* of the vowel. If you start a vowel on the impulse or lift of the breath, you have an *easy onset* of the vowel.

Practice using easy onsets on the stressed words. Final consonants may be shifted over to an unstressed vowel to avoid glottals on words that are unstressed.

'Eat_an 'apple 'every day.	'Oliver_and 'Audrey were 'unruly.
'Enjoy the 'opera!	'It was_an 'awful 'accident.
Go 'outside_and smell the 'orchids.	Get 'out_of my sight!
'Under 'eye 'ointments_are 'oily.	'Eggs with 'olives taste 'awful.
'Honesty_and 'integrity_are 'admirable.	'An 'Astin Martin_or_a Bentley would be 'awfully nice!

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### Determining Your Optimum Pitch

Another very harmful speech habit a lot of singers have is speaking too far above or below their optimum pitch. The great American baritone Jerome Hines wrote about vocal fatigue in his book, *Great Singers on Great Singing*. He found that his own vocal fatigue was not from his opera performances but from speaking improperly. His work with a speech therapist led him to interview his colleagues and discuss their personal approach to classical vocal technique.

Singers are trained ideally to have a three-octave range of optimum pitches when they sing. But when they speak, there is a fairly narrow optimum pitch range that is best for their speaking voice. An *optimum pitch* is a pitch at which the speaker is most physically comfortable and the voice resonates and projects most easily.

Most of us learned to speak by imitating our parents and caregivers. It is not a coincidence that when visiting our childhood home, we answer our parent's telephones and the person on the other end exclaims, "Oh, you sound just like your Father/Mother!" Unfortunately, imitating our parents does not mean that we are speaking in the pitch range that is best for our *own* voices.

Part of it is also cultural influence. Girls are often encouraged to sound "ladylike" and have soft, high-pitched voices; boys are encouraged to sound "masculine" and macho.

Often classically trained singers are encouraged to speak in their singing range rather than their optimum speaking range. I call it the "'Hi, I'm a tenor' syndrome." So, how do you find *where* your optimum pitch for speaking is? Gather around the piano with some friends or colleagues and listen to each other speak.

Ladies:

Start out at middle C. At medium volume repeat a phrase like "Hi! How *are* you?" on several pitches. *Make sure you are speaking on these pitches and not singing on them.* First try middle C, then go up or down by half steps. Listeners, listen for the pitch that sounds the most resonant and brings out the most unique quality to their speaking voice. For most sopranos, the optimum pitch is somewhere between B-flat and D. For a high

coloratura, it might be an E. For most mezzos, the optimum pitch range is often between middle A-flat and C. There may be one or two pitches that seem correct. After a week or so of using the voice in that range, the speaker will settle in on the one that seems most natural and comfortable.

Gentlemen:

Start your search around the D below Middle C. Again, repeat a phrase like “Hi, how *are* you?” on several pitches. *Remember to speak on the pitches; don't sing on them.* Go up and down by half step and listen to the feedback of your listeners. When the voice seems to resonate naturally and the partials seem to come into the vocal color, then you are close to the optimum pitch. For tenors, the range is often somewhere between D and F. For baritones, the range is often between B and D. For basses, A and C. Again, if it is a toss up between two notes one half step apart, give it a week and see which one ends up being the best fit for you.

### Speaking at Your Optimum Pitch Range

Once you have determined approximately what is your optimum pitch, use a short memorized text to practice with. It could be a speech or prayer or anything that you have by rote memory. Play your optimum pitch on the piano and start every phrase of your memorized text on that pitch. Try to stay within an interval of a third on either side of your determined optimum pitch. That way, when you naturally inflect your voice you will stay only a note or two above or below it. Many singers make the mistake of trying to speak with a wide range. The optimum pitch range is only the range of a perfect fifth or a sixth.

If you begin using your optimum pitch range regularly, you will find that you will have less vocal fatigue and that you will not have to push your voice to be heard. It is especially important to use it when speaking on stage or in the midst of a crowd.

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Here are some more exercises to work with eliminating glottal attacks while using your optimum pitch range.

1. Go through the vowels of the Vowel Chart on page 35 in order. Initiate each vowel with a breath lift. Be careful not to use glottal attacks.

EXAMPLES    Tongue vowels: [ˈi], [ˈɪ], [ˈɛ], [ˈæ], [ɑ]  
                   Lip vowels: [ˈu], [ˈʊ], [ˈo], [ˈɔ], [ˈɒ], [ˈɑ]  
                   Mixed vowels: [ˈɜ], [ˈə], [ˈɜː], [ˈɚ], [ˈʌ], [ˈə]

Now go through all the same vowels above, instead alternating between [m] and a breath lift [ˈ] before each vowel. Concentrate on staying near your optimum pitch.

EXAMPLES [mi], ['i], [mɪ], ['ɪ], [mɛ], ['ɛ], [mæ], ['æ], [mɑ], ['ɑ]

2. Try alternating between breath lifts and glottal attacks on Lady MacBeth's desperate cry in her sleepwalking scene:

'Out damn'd spot! 'Out I say! vs. ?Out damn'd spot! ?Out I say!

Lines this dramatic are much more effective with glottal attacks. This is an example where a breath lift would not be expressive enough. In singing, try to use glottal attacks only when the dramatic intensity requires it. Otherwise, always substitute breath lifts to maintain healthier vocalism.

3. Look for five examples in your own repertoire where breath lifts could be substituted for glottal attacks on stressed word-types beginning with a vowel.
4. Prepare the following poem for dramatic reading. Indicate the stressed word-types. Practice initiating the stressed words that begin with vowels with breath lifts. (Note that the breath lifts on the stressed words have been indicated. The unstressed words should *not* have glottal attacks.)

Thus Dullness, the safe 'opiate\_of the mind,  
 The last kind refuge weary Wit can find,  
 Fit for 'all stations, and\_in 'each content,  
 Is satisfied, secure, and 'innocent.  
 No pains\_it takes, and no offence\_it gives:  
 'Unfeared, 'unhated, 'undisturbed\_it lives.  
 And if 'each writing 'author's best pretence  
 Be but to teach the 'ignorant more sense,  
 Then Dullness was the cause they wrote before,  
 As 'tis at last the cause they write no more,  
 So Wit, which most to scorn\_it does pretend,  
 With Dullness first began, in Dullness last must 'end.

(Alexander Pope, "On Dullness")

Breath lifts were added before each of the stressed words that begin with a vowel. All unstressed words that begin with vowels should be initiated with breath lifts if they are at the beginning of a line, as is the natural onset in a healthy singing technique. Unstressed vowels that begin words in the middle of the line should be connected with a liaison (◌) to the word preceding them.

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