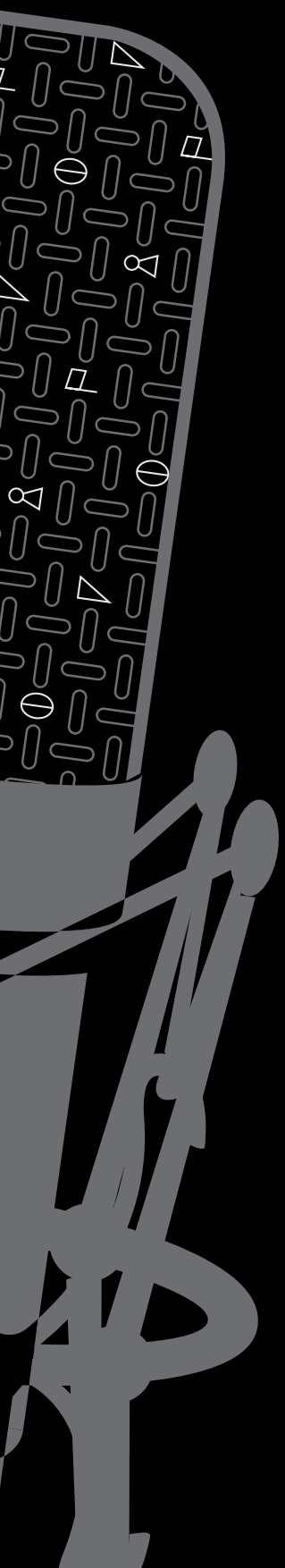
CATHRINE SADOLIN



COMPLETE VOCAL TECHNIQUE

Download included with purchase:
CVTSOUNDLIBRARY
416 female & 417 male sound examples and exercises (mp3)

Contents

Introduction 6
Updates in relation to previous editions 10
Using this book 11
How to Practise 12
'Complete Vocal Technique' in four pages 15

The Overall Principles

The Three Overall Principles 20
Breathing 21
Inhalation 23
Posture. 26
Support 27
Supporting muscles 28
Inner support. 31
Feeling support 33
Support training. 38
Energy 39
Using support 40
The Vocal Cords 44
The Throat. 48
Twang 51
Pronunciation 53
Opening the Mouth. 58
Completing a Note 60
Attacks 61
Volume. 64
Pitch (Registers) 66
Flageolet 67
Training the extreme parts of the voice 69
Range and Types of Voices 70
Fine-Tuning 72
Tone-deafness 74
Trouble-Shooting 76
Solving unintentional vocal breaks .76
Solving split in the voice. 79
Additional Trouble-Shooting. 80

Vocal Modes

Introducing the Vocal Modes 81
The metallic sound 81
Vocal modes 81
Trouble shooting 83
Neutral 87
Neutral with air 88
Neutral without air 88
Pitch in Neutral. 90
Vowels in Neutral 90
Volumes in Neutral 90
Sound Colours in Neutral 90
Metal-like Neutral 92
Exercises in Neutral 93
Curbing 96
Finding Curbing 97
Pitch in Curbing 99
Vowels in Curbing. 100
Volumes in Curbing. 101
Sound Colours in Curbing. 101
Exercises in Curbing 103
Overdrive 106
Finding Overdrive. 107
Pitch in Overdrive 109
Vowels in Overdrive. 110
Volumes in Overdrive 111
Sound Colours in Overdrive 111
Exercises in Overdrive 113
Edge (formerly 'Belting') **116**
Finding Edge 117
Pitch in Edge 121
Vowels in Edge. 121
Volumes in Edge. 122
Sound Colours in Edge. 123
Exercises in Edge 125
Summarising the modes **128**
Using the modes. **130**
Transitions between modes **131**
Pitch and the modes **134**
Sound colours and the modes **139**
The modes in classical singing. . . .140
Volumes and the modes. **141**
Loud volume 144
Medium loud and medium quiet volume. 145
Quiet volume. 145
Advanced exercises in volume . . .146
Combinations of volume 147
Vowels and the modes. **149**
Choice of vowel in relation to mode 151

Speech techniques **152**
Speaking in different modes 152
About speaking in general 155

Sound Colour

Introduction to Sound Colour **158**
Vocal tract. 158
The 'Epiglottic Funnel'. **159**
Necessary twang 159
Distinct twang 160
Twanging with a lowered larynx . .160
Exercising distinct twang and necessary twang 161
The Larynx **162**
Lowering the larynx 162
Raising the larynx 163
Exercises in raising and lowering The larynx. 164
The Tongue **166**
Compressed tongue 166
Broad tongue. 166
Exercises in broadening and compressing the tongue 167
The shape of the Mouth opening . . . **168**
Relaxing the corners of the mouth 168
Smiling. 168
Exercising different shapes of the mouth 168
The Palate **169**
Raising the palate 169
Lowering the palate 169
Exercises in raising and lowering The palate. 169

The Nasal Passage. 171
Closing the nasal passage 171
Opening the nasal passage. 171
Exercises in opening and closing the nasal passage 172
List of sound colours 173
Exercising sound colours 174

Microphone Technique 175
Pronunciation and the microphone 175
Microphone spheres 175

Effects

Introduction to Effects. 177
Distortion 179
Creating intentional distortion. . . . 179
Finding noise. 181
Noise added to a mode 183
Full distortion 185
Exercises in distortion 185
Creak and creaking 187
Finding creak 188
Finding creaking. 188
Exercises in creak 189
Exercises in creaking 189
Rattle 190
Exercises in rattle 191
Growl 192
Finding growl 192
Growl added to a mode 193
Exercises in growl 194
Grunt 196
Finding grunt 196
Exercises in grunt 198
Screams 199
Finding screams in Neutral 199
Finding screams in Curbing 199
Finding screams in Edge. 200
Finding screams in several modes .200
Finding screams with effects. 200
Intentional vocal breaks. 202
Finding vocal breaks 202
Exercises in vocal breaks 203
Air added to the voice 206
Finding air added to the voice 206
Exercises for adding air to the voice 207
Vibrato 209
Hammer vibrato 209
Laryngeal vibrato 209
Using vibrato 211
Exercises in vibrato 211
Too much vibrato 211
Techniques for Ornamentation (rapid run of notes) 213
The hammer vibrato method 213
The laryngeal vibrato method 213
Ecercises in ornamentation technique 214

Vocal problems

Hoarseness 216
Nodules 218
Too much mucous 219
Prevention and Emergency Aid . . . 220
Programme for Emergency Aid 225
Warming up. 228

Additional techniques

Hearing your own voice 229
Inner hearing. 229
Outer hearing 230
Studio and live techniques 231
Acoustic singing. 231
Singing in a recording studio. 231
Singing live with amplification . . . 232
Improvisation and phrasing 234
Method for beginning improvisation 234
Method for advanced improvisation 236
Interpretation and Performance . . . 239
Method for working with expression. 240
Performance 243
Physical exercise 245

Lists

List of Sound Examples (the 'CVT Sound Library') 249
Glossary 253
Index 256
Charts 261
Find a CVT Teacher 268

Complete Vocal Institute

Info about CVI 269
'Complete Vocal Technique' research 271

Introduction

Singing is not difficult

The voice is not as complicated to use as many people think. It is an instrument that everybody has and uses every day. Of course it requires practice to sing professionally, but when you know how the voice works and how to use its natural functions and develop them further, you will be able to learn most of what is required.

The voice usually works perfectly until we hinder it during childhood with uncontrolled constriction. Singing techniques are mostly about removing uncontrolled constriction to allow the voice to work freely. This means everyone can sing if they do not hinder their voice production. Therefore there is no reason to work with the technical aspects of singing unless you think you have a specific technical singing problem.

Technique and expression

This book however is mainly about technique – this is not because I believe technique is the most important aspect of singing. On the contrary, technique is only the MEANS by which we express ourselves. I think the most important aspect is EXPRESSION - to convey a message. What to convey and how to convey it are artistic choices that every singer has to make for her/ himself. This book is about the techniques required to accomplish the artistic choices you would like to make.

The history of singing

In the old days you could not amplify the voice electronically so singers had to find a way to be heard from a considerable distance. This led to the development of certain vocal techniques that gradually became the only right vocal sound to be produced. In the Western world this taught sound became known as the 'classical sound'.

With the invention of the microphone it became possible to amplify all sounds including those that were previously too quiet to be heard from a distance. This brought new 'untaught' sounds to the same volume as 'taught' sounds. This meant that many new sounds of the voice could be used and that new ideals emerged for what constituted a 'good' sound.

Many of the 'new' ways of singing turned out to be just as strenuous and difficult as the 'taught' ways. New style singers, who became known as singers of 'popular music', had to learn how to sing healthily by themselves because teaching in the new singing styles was not available. They could not get help from classical singing techniques as these resulted in a classical sound which they were not interested in. As a result of this lack of tuition some new singers damaged their voices and their singing styles were labelled as dangerous and unhealthy - even though many classical singers also had vocal problems.

In the 'popular music' camp some singers made a virtue of necessity and declared that 'true' singers of popular music should be self-taught, claiming that tuition would remove a singer's special touch. Both camps nurtured their prejudices against each other. A gulf between the classical and the popular camps developed which, unfortunately, still exists today to some degree. This gulf is more about taste than of the use of techniques.

Amongst the 'popular music' singers who lost their voices were those who fell by the wayside in practice rooms and you never heard of them. Some lost their voices at the beginning when they started touring or later on in their careers due to the strain and increased demands on their voice. But there WERE 'popular' singers whose voices 'lasted' throughout their careers regardless of how strained they sounded.

It is therefore from both the techniques from the 'classical' school and the experience of these 'popular' singers that I base many of the new singing techniques on today.

Myths about singers

There are many myths about performers before the days of recording: 'This was a voice like none other, never to be heard again' and so on. I don't believe this is true. It is probable that it was not the performer's voice that was so special but her/

his technique in producing the voice. We can all accomplish a good technique by knowing what and how to practise.

Unfortunately, we can only accept the myths about past performers because we have no recordings to prove or disapprove them as, of course, their voices died with them. I believe that all singers can accomplish all sounds. Since recordings began there has not been a sound that cannot be taught.

Myths about singing techniques

Being able to see what you are doing is an invaluable tool in learning. Unfortunately, singing tuition cannot rely on sight and that lead to myths about how sound is produced. Thankfully, science now provides new knowledge so we know much more about the working of the vocal cords today. We are now able to watch the vocal cords work and we know more about the anatomy and physiology of voice production. This has helped to eliminate many of the previous misconceptions and myths that were based largely on guesswork, many of which contributed to ruined voices and careers.

With a better understanding of voice production months of wasted and harmful training can now be avoided. When teachers can be specific in their instructions, singers no longer have to go through years of training based on vague directions. When you can work on a problem directly, it is easier to determine whether you are on the right track or not. A technique must have the intended effect immediately otherwise it is not being done correctly. Experience also shows us that singers who perfect these new techniques are able to last on strenuous tours which is one of the reasons why the techniques today have the backing of doctors and speech therapists.

My research

It is my firm belief that ALL the sounds a singer wishes to make are equally important and must be taken seriously and be included for research. By removing the restrictive 'ideals of sounds' from musical styles and by dividing and isolating all the elements of sound, it becomes the artist's personal artistic choices that determine the sound rather than convention. I do not wish to judge which sounds should be considered 'right' and essential to learn. All sounds are equally valuable; therefore this book includes tools to perform all the sounds in the voice I have ever encountered.

My own story

I never had a natural talent for singing. In fact, I even had problems breathing. My first singing lessons were an attempt to overcome breathing problems due to asthma. One way or another I had to develop techniques to get the sounds I wanted. The first step was to understand the anatomy and physiology of the voice and this enabled me to distinguish between myths and truths about the voice. I then experimented with achieving the sounds in ways other than the traditional methods. The only natural talent I had was a love for music coupled with the belief that everything is possible and the energy to keep going. That is why I can truly say that if I was able to learn and achieve the sounds I wanted then anybody can.

While I was working on my technical problems through the years I had always listened to all kinds of music. That was probably why many singers of popular music began asking me to help them achieve certain sounds and overcome vocal problems, even though I was trained as and eventually performed as a classical singer. It seemed to me that they wanted the healthy aspect of the classical technique but without the classical sound. I thought that it must be possible to benefit from the technique without being constrained by the narrow ideals of sound. To do this however, I had to find out how sound was produced, and this encouraged me to study many styles of singing, speech and hearing science, acoustics and spectral ear training.

Singing techniques were always presented with attached ideals, i.e. regarding sound colours. If you wanted to use the technique you had to accept these ideals. I did not want to accept that. I wanted to separate taste and technique in order to isolate the technique so that singers could combine the endless elements to create any sound they were looking for, without the interference of the specific taste of a particular technique or teacher.

Methodology

According to traditional Western perception, blues, rock, gospel and also many ethnic singers, for instance in Arabic classical music, do not sound as a 'healthy singer' should sound. And yet many of these singers sing more frequently and for longer than many classical singers in top technical form. In addition many hard or heavy rock singers have been predicted as having short-lived careers and have proven their critics wrong. In fact, many of these singers often sing better and better throughout the years, regardless of how 'damaging' their singing sounds.

I have based my research on a wide range of experience of singers singing live and in the studio with many different sounds other than the classical western style without damaging the voice. I know these singers must have excellent techniques for them to sing for so long and still sound so great. I started looking for common factors in their singing to search for an underlying structure to the various sounds.

It became apparent to me that there IS an underlying structure to the various sounds. I tried to understand this by deconstructing as many different sounds as possible from many different types of music, taking into account the sound, the vowel, the pitch, and the volume, to see if there was a pattern. Gradually this pattern became more and more evident and I concluded that the sounds could be divided into two overall categories. One was harder, rougher and more direct - I named this 'metallic' sound. I named the other category 'non-metallic'.

It became apparent that the sounds could be further categorised depending on how 'metallic' the sounds were i.e. 'full-metallic' or 'half-metallic'. In addition there appeared to be two distinct types of full-metallic voice. This meant that there were four main categories or vocal 'modes' in total: one non-metallic voice quality I called 'Neutral', one half-metallic voice quality I called 'Curbing', and two full-metallic voice qualities I called 'Overdrive' and 'Edge' (formerly 'Belting'). Detecting the four vocal modes was, however, only half of the process of discovery. The next stage of my research was to demonstrate that I and a small group of accomplished singers could perform all these distinct vocal modes.

The birth of Complete Vocal Technique

The work developed to such an extend that all sounds the human voice can produce could be categorised and organised into a clear system. In effect, a whole new concept in singing technique was formed which, contrary to previous techniques and beliefs, could be applied to all styles of music.

I then experimented with the sounds used in classical singing and found that the classical sounds are also produced by non-metallic, half-metallic and full-metallic modes. This confirmed to me that the vocal modes are the foundation of the very structure of the voice and therefore encompass all sounds, all singing techniques, and all musical styles.

Further work with the vocal modes made it possible to identify their advantages and limitations. When singers appreciate the advantages and respect the limitations of the vocal modes they will gain a better overview of the possibilities of the voice and will be able to choose freely between the various sounds in addition to avoiding damaging the voice.

Ongoing research

Music styles progress rapidly partly because of the influence of the many and diverse cultures throughout the world and their corresponding singing styles. At the same time, singing techniques have also undergone major developments, a trend that is unlikely to end in the foreseeable future. The rejection of rigid, out-of-date ideals of sound has necessitated the development of a more all embracing way of viewing the voice. More research into these new singing techniques can be found in this book.

Generally scientific research is based on pre-existing knowledge and singing technique is no exception. There is no reason to reject useful knowledge that has been gleaned over the years, for example from the old Italian masters of classical singing, but it has become apparent that additional knowledge is necessary to meet new demands.

That said, it must be added that some of the research is so new that many aspects have yet to be studied. For instance,

certain sections of this book have been revised since the first edition as a result of more experience and new research. Even if all the techniques have not yet been fully investigated, I have found that they DO work. The desired sounds can be obtained without vocal discomfort or the singer becoming hoarse and this is surely a step in the right direction.

Theory and practice

Singing tuition has undergone great development since the time when singers were told that 'placing the voice' would take eight years.

New research has revealed new facts about the instrument, but we must be wary that this new knowledge does not shift the focus away from practical use and onto theory only. Theory can be valuable and is needed, but the development must not stop there. A singer's objective is seldom to be scientifically educated but to get practical, tangible instructions on how to solve her/his vocal problems. A specific problem requires a specific solution, not a theoretical lecture. Only when theory is put into practice can artistic expression be made.

Easy to use

The techniques in this book have been developed and tested in recording studios and on tours. The main purpose of this material, therefore, is that it must be clear and easily accessible, and most of all, fast and easy to use.

Increasing demands

The demands on singers have increased over time. In the Renaissance (15th century) the range of most songs was about 1.5 octaves. In Mozart's time (18th century) this had increased to twice that amount in extreme cases such as "The Queen of the Night" aria in "The Magic Flute" which required around 3 octaves. Today you often hear singers with even larger ranges. This, together with increasing commercial exploitation of music, means the demands on professional singers are enormous. For record companies to work wholeheartedly with a singer they must be convinced that s/he is able to fulfil the increasing demands and be able to last concert after concert on strenuous tours.

Educational tools are options - not demands

It is ironic that the growing demand for teaching and the new possibilities of satisfying this demand runs the risk of demanding even more from the singers. I do not want to contribute to the increasing technical pressures on singers. I would therefore urge singers to regard these new singing techniques as TOOLS for expressing yourself, not as demands. This book is intended as a reference text and a guide to techniques which make it possible to produce various sounds and overcome vocal limitations. Singing technique should not be the main issue, nor should any singer believe that ALL the possibilities of the voice have to be perfected to pursue a professional singing career.

Remember it is the choices of what to do, as well as the choices of what not to do, that characterises an artist.

Techniques must work instantly

With these new techniques singers can get immediate help in solving technical problems rather than be told to practise for years, not knowing if they are on the right track. The techniques must work instantly otherwise they are not being done correctly. So it should not be necessary to start all over again every time you seek new teaching or knowledge. I see no point in discarding previous teaching or training in order to obtain new knowledge. Singing is not so difficult; the techniques work instantly when you are on the right track. Therefore, by using these techniques, you only have to correct the parts of your singing that you wish to improve and you should still be able to keep the parts you are content with.

Today it is possible to give 'Emergency Aid' to singers. A single hour's work is often enough to enable singers to complete concerts and studio recordings that would otherwise have had to be cancelled due to vocal problems. The fact that a large part of our work at CVI consists of giving this Emergency Aid supports the concept that the techniques work at once. Theory has been transformed into useful, practical techniques that work instantly in emergency situations.

I believe it is possible to produce ALL sounds in a healthy manner.

Updates in relation to the previous editions

- The pitch notation system has been changed from Helmholz to scientific pitch notation. That means that Middle C (formerly called C1) is now called C4 etc.
- The International Phonetic Alphabet (IPA) have been added to the vowels.

New chapters

- An extra section on "Diphthongs" has been added.
- An extra chapter on "Flageolet" with a new illustration has been added.
- An extra chapter on "Metal-like Neutral" has been added.

Expanded Chapters since the last edition

- The chapter on "Inner support" has been expanded.
- The section "Use the precise vowels" has been expanded.
- The section on "Main vowels and satellite vowels" has been expanded.
- The chapter on "Volume and modes" has been expanded.
- The Chapter "The Epiglottic Funnel" has been expanded with more tips on how to find distinct twang.
- The Chapter "Larynx" has been expanded with more tips on how to lower and raise the larynx.
- The Chapter "Tongue" has been expanded with more tips on how to compress and broaden the tongue.
- The Chapter "The shape of the Mouth opening" has been expanded with more tips on how to relax the corners of the mouth and smile.
- The Chapter "Palate" has been expanded with more tips on how to raise and lower the palate.
- The Chapter "The Nasal Passage" has been expanded with more tips on how to close the nasal passage.
- The section "Various levels of the vocal tract" has been expanded with Levels 4, 5 and 6 added.
- All the effect chapters have been expanded with a description of vocal tract levels where the effect is produced.
- The chapter "Creaks and Creaking" has been expanded.
- The chapter "Rattle" has been clarified and divided into 4 different types of rattles.

Miscellaneous

- Constriction that impairs the voice has been replaced with uncontrolled constriction.
- The names for the various 'attacks' are replaced with the names of the vocal modes.
- It is not possible to feel a vocal mode, but you can hear it.
- Neutral is obtainable for women only above High C (C6).
- The volume charts have been divided into 4 main volumes: loud, medium loud, medium quiet, quiet.
- In the low, middle and high part of the voice, medium volume is obtainable in Neutral, Curbing, Overdrive and Edge.
- In the very high part of the voice, medium volume is obtainable for men in Curbing and Edge.
- In Curbing you can only use the vowels 'I' (as in 'sit'), 'O' (as in 'woman') and 'UH' (as in 'hungry'). In Overdrive you can only use the vowels 'EH' (as in 'stay') and 'OH' (as in 'so'). In Edge you can only use the vowels 'I' (as in 'sit'), 'EH' (as in 'stay'), 'A' (as in 'and') and 'OE' (as in 'herb'). It might seem like all vowels can be used in the metallic modes in the low part of the voice because the vocal modes resemble each other here, but if you want to obtain the centre of the metallic vocal modes you need to use the correct vowels.
- The section "Speaking in Curbing" has been clarified.
- Tremolo is replaced with 'involuntary vibrato'.

Using this book

Different learning angles

Everyone learns differently. Some singers have to understand the theoretical explanation of a problem in order to solve it, some physically feel their way through, while others work by means of sound, for example by hearing, recognising, and copying the sound. Some learn by looking at graphic illustrations, and others find the solution to their problems through inner images and sensations.

To cater for all these learning methods each chapter of this book will contain:

- Anatomical and physiological explanations
- Physical instructions
- Sound examples (5 = sound example 5)
- Illustrations
- Examples of inner images and sensations

No one method is more important or preferable to another. The anatomical and physiological explanations are included because some singers will find them valuable. Others, however, may find it of little use and potentially distracting. The techniques in this book do not necessarily require that you have to understand and sense your anatomy or physiology. It is important not to be overwhelmed by these explanations. The different methods are presented as a range of possibilities. It is up to each individual to choose the method they find most accessible and from which they can achieve the best results. It might, however, be practical to read all the different types of explanations, partly because it may help to see things from a different perspective, and partly because one explanation often complements another.

Know the anatomy of the body

I recommend that singers should be as aware as possible of what is happening in the body during singing. Therefore I try to use the correct anatomical terminology throughout this book. Once you know the anatomy and physiology of the voice and are aware of how to use it the technique is easier to understand and consequently it is easier to do something about your vocal problems. For instance, it will help you to distinguish between good and bad advice, and myths about 'correct' technique. I urge everybody to study the anatomy and physiology of the voice and with common sense find the technique that feels the best.

Locate the main problem

When you are learning it is often difficult to decide what is the most important thing to concentrate on and what is less important. To assist you in this I have outlined the techniques presented in this book in the chapter "Complete Vocal Technique in four pages" (on page 15). This provides you with an overview before you go into detail.

Even though each topic is thoroughly described in this book, this does not mean that every subject is equally important for all singers. Singers are different so certain passages will be relevant to some but not to others.
As in all teaching the most important thing is to focus on the main problem instead of being distracted by all the minor details you meet on the way. If you can identify and solve the main problem many other problems will be resolved at the same time. It is easier, and more efficient, to concentrate on one problem at a time instead of many. I suggest that once you have an overview of the techniques in this book, you should work your way through the relevant sections, paragraph by paragraph, in the search of your main problem.

Take responsibility for yourself

It is important that singers themselves take responsibility for their own development instead of being dependent on a teacher. Even the best teacher in the world cannot teach you anything unless you yourself pick up the teaching and work with it. In the end it is you who has to decide which parts of the teaching you can use, which parts you cannot make work and what you do not care about.

It is not difficult to work out if you are on the right track when you practise. A correct technique should result in continuous improvements in your singing. There is no reason to take lessons for years if you do not think the instructions are making singing any easier or are bringing you closer to your goals.

How to practise

Trust your taste, powers of judgment and senses. Experimenting brings renewal; individuality is also important. Feel, listen, and choose. Test the technique and practise until you have learned what you want to be able to do. Determine whether you are getting the sound you want. If not, what is missing? Try to find it through your own intuition and taste. Why should you use a sound you do not like? Nobody but you can create YOUR career, and maybe your career is based on being different and sounding like no one else. Always be your own judge and decide whether you are getting closer to your goals.

In my opinion the taste of the teacher is unimportant. To me the teacher's task is purely to help singers achieve her/his desired way of singing in a healthy manner, for example by hearing possible uncontrolled constriction and making suggestions about how the singer can remove it. The teacher could also make suggestions about alternative sound possibilities, but it is the singer who should make the artistic choices.

Change of pitch notation system

We have changed the pitch notation system from Helmholz to scientific pitch notation; partly to orientate us towards the world outside Europe where scientific pitch notation is used to a much larger degree than Helmholz, and partly to keep up with the times because scientific pitch notation is used in all major computer programmes.

Scientific pitch notation names notes by combining a letter name and a number identifying the pitch's octave. The definition of scientific pitch notation is where C0 is around the lowest possible audible frequency (at 16 Hz). The octave number increases by 1 upon the ascension from B to C. "A4" refers to the first A above Middle C, namely 440 Hz. That means that Middle C, formerly called C1, is now called C4.

A healthy voice

The first thing a singer must learn is not to lose the voice. Once you lose your voice you have to stop working until it returns. Furthermore, it is difficult to experiment if you are hoarse as the voice does not respond as it normally would. It takes a skilled singer to avoid compensating once the voice is strained. As long as the voice is in good condition, you can practise and experiment your way until you achieve your goals.

Muscle memory

If you sing something over and over again your brain will remember the action. This is called building up your 'muscle memory'. This means that the muscles get used to responding in a certain way and will learn to function automatically in the future. It is important, therefore, to establish healthy routines as this will really help your 'muscle memory'.

When you practise, it is important to concentrate and avoid making too many errors. It is generally better to do easy exercises without mistakes than difficult exercises with mistakes. If you fail with the same exercise three times in a row, it is too difficult and you are in danger of creating uncontrolled constriction if you continue. Uncontrolled constriction happens when some of the muscles in the throat work too hard or tighten up at the wrong time. It stops the voice from working well, freely and easily. You must make the exercise easier in order to accomplish the vocal task. Become familiar with the correct 'feeling' and work healthy routines into your 'muscle memory'. Eventually the voice will know only these healthy routines and you will not have to spend much time on technical difficulties.

Trust yourself

An important rule that cannot be stressed enough is that singing must never hurt or feel uncomfortable. If something does not sound right, if something feels wrong, or if it feels uncomfortable, your voice is telling you that you are doing something wrong. Always trust your feelings - they are better and more direct than even the best teacher's ear.

Singing must always feel comfortable

- The technique must have the intended effect immediately otherwise the training is not being done correctly.
- If an exercise hurts or feels uncomfortable or wrong, then it IS wrong. You are the only one who knows how it feels, so trust your judgement.
- Always practise as close to a real-life situation as possible. For instance, musicians who sit when they sing should also practise while sitting.

Exercises must be simple

Many singers ask for specific exercises to solve specific problems. I do not think that exercises alone are important, but THE WAY you work with them is. All your concentration must be focused on exactly HOW you work with the voice during the exercise. The final result should be that you are able to sing all combinations of notes and intervals without hindrance.

As all your attention must be placed on achieving the correct singing technique, I suggest that the exercises should be as simple as possible. That way you can concentrate on the work of the body. I think it takes too much concentration to manage a complicated exercise while, at the same time, trying to solve technical problems. That is why the exercises in this book are simple, each one of them dealing with one technical problem at a time.

The exercises in this book can be replaced by other exercises as the melodic sequences in themselves are of little importance. The WAY in which you work with the exercises, however, is important. So if you wish to use other exercises, please feel free to do so.

Songs instead of complicated exercises

When you are able to perform simple exercises with the correct technique, you will have a solid foundation with which to approach the problems in songs. I see no point in working through difficult and complicated rhythmic and melodic sequences in order to train your voice. Instead, you should tackle the problems in a song and its real problems. Every time you come across a technical problem return to a simple exercise and concentrate on solving this technical problem. Once you have figured out HOW to solve the problem transfer the technique to the song.

If you at a later point get tired of practising the major scales and you want inspiration to develop your phrasings or improvisations, you can practise other scales such as the minor scales, pentatonic scales or blues scale (see 'Improvisation and phrasing' on page 234).

Changing the key of the exercises

When you have perfected the exercises in one key then practise them in other keys in order for you to perfect the same exercise at all pitches. This is called 'transposing' the exercise and will give you a good idea of the factors you should take into account when singing in different keys.

Personalised training programme

Put together your own training programme to practise those techniques that you think you need to work on. You can continuously vary your training programme according to your technical problems, what you need, and how much time you have.

How long should I practise

There are many myths about how long a singer should practise. As with all things in singing it depends on the individual. A singer must judge how long s/he can concentrate and on how long s/he has the energy and the strength to practise. It is important to be familiar with your own limits and not practise more than you can manage. Training without concentration or strength can do more harm than good. In such cases you may train using the wrong techniques which could then take a long time to undo. In other words it is better not to practise than continue with a poorly performed exercise.

Practise with other singers

Practise with other singers for mutual support and encouragement. It is more fun and several ears often hear better than yours alone. It is usually easier to hear the mistakes of other singers than your own. So practise together, help each other and have fun. Again, always trust yourself and do not confuse taste with technique. Only you can make your artistic choices and decide what sound you wish to create.

Use exact vowels

It is very important to make sure that the pronunciation of the vowels sounds is done 100% correctly. Being able to recognise the exact vowel sound is equally important in order for the technique to work in the right way as these exact vowel sounds are often a necessary condition for obtaining certain vocal modes.

If you make the wrong vowel sound you might risk not being able to perform certain modes, pitches and sound colours. Therefore, it is very important that you take time to understand exactly which vowel sound is called for before you start the exercise.
Different languages and dialects can trick you into using a different vowel sound than the one that must be used. This is why, in the beginning, you must spend time familiarising yourself with the exact vowel sounds by listening and imitating the examples on the CVT Sound Library.

Also see the chart on the Overview of the modes page 265.

Train each vowel individually. Listen to the exact vowel sound in the CVT Sound Library. Do not mind if the vowels in the CVT Sound Library doesn't sound exactly as the vowels in your language or dialect. The vowels in the CVT sound library is made for all languages, taking its starting point in English, so the CVT sound library might have other vowels or slightly different vowels compared to the vowels in your language or dialect. If there is difference between the vowel sound in your language and the vowel sound in the CVT Sound Library, use the vowel sound from the CVT Sound Library.

The vowels (capital letters) used in this book are as follows:

'EE' is pronounced as in 'see' 8 [i]

'I' is pronounced as in 'sit' 9 [ɪ]

'EH' is pronounced as in 'stay' 10 [ɛ]

'A' is pronounced as in 'and' 11 [æ]

'OO' is pronounced as in 'you' 12 [u]

'O' is pronounced as in 'woman' 13 [ɒ]

'OH' is pronounced as in beginning of 'so' 14 [ɒʊ]

'AH' is pronounced as in 'far' 15 [ɑː]

'OE' is pronounced as in 'herb' 16 [ɜr]

'UH' is pronounced as in 'hungry' 17 [ɒ]

'OR' is pronounced as in 'order' 18 [ɔː]

The signs in square brackets after the vowels are a standardised way of writing down the pronunciation called 'The International Phonetic Alphabet' or 'IPA'. It is an alphabetical system of phonetic notation and a standardised representation of the sounds of spoken language.

Complete Vocal Technique in four pages

Singing is not that difficult and everybody can learn to sing. I have divided the singing techniques into four main subjects as listed below. By combining elements of these four subjects you can produce precisely the sounds you want. You will also be able to pinpoint your specific problems and mistakes, and you can focus on which techniques you wish to work on.

Here I have condensed 'Complete Vocal Technique' into four pages. You can return to these pages at any time to give yourself an overview of the contents of this book.

The four main subjects are:

- The three overall principles - to ensure healthy sound production.
- The four vocal modes - to choose the 'gear' you want to sing in.
- Sound colours - to make the sound lighter or darker.
- Effects - to achieve specific sound effects.

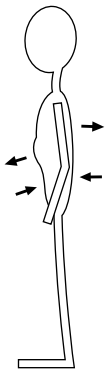
The three overall principles

The three overall principles are the most fundamental and important to perfect. They make it possible to reach all the high and low notes within the range of the individual singer, to sing long phrases, to have a clear and powerful voice and to avoid hoarseness.

The three overall principles must be obeyed regardless of mode, sound colour, and effect. They are:

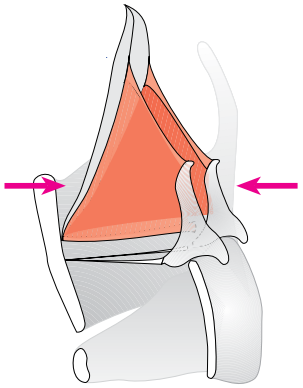
1. Support

This means working against the natural urge of the diaphragm to release the air that has been inhaled. This is achieved by resisting its movement. During singing, the waist muscles and solar plexus are pushed outwards whilst the abdomen around the navel is gradually pulled in in a constant and sustained manner and the back muscles are tightened. The muscles in the loin try to pull the pelvis backwards, while the muscles in the abdomen try to pull the pelvis up under your body. This battle created between the abdominal muscles and the muscles in the loin is a valuable and important part of support. However, the support must happen in a sustained and continuous manner as though working against a resistance for as long as a sound is being produced. When the muscle contractions stop being sustained and continuous, for instance if you cannot pull the abdomen around the navel inwards any further or push the muscles of the waist or solar plexus outwards any further, then there is usually no more support. It is important to conserve your support energy so you do not waste it or use it at the wrong point in time. Do not use support before it is necessary. Save it for when the singing gets difficult, such as on high notes or at the end of a phrase. Support is hard physical work so you should be in good physical condition.



2. Necessary Twang

The area above the vocal cords forms a funnel, this is called the 'epiglottic funnel'. When twanging, the opening of the epiglottic funnel is made smaller by bringing the arytenoid cartilages closer to the lower part of epiglottis (the petiole). As a result the sound gets clearer and non-breathy, and you can increase your volume. You always need to use necessary twang in order to have correct technique and achieve easy and unhindered use of the voice regardless of the mode,

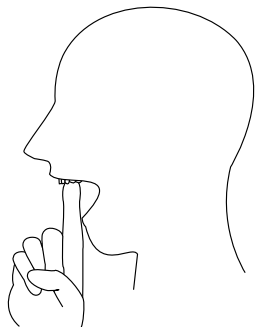


sound colour and effect used. Necessary twang makes it easier to sing in all ways. For many this necessary twang does not sound twanged at all.

3. Avoid protruding the jaw and tightening the lips

Avoid protruding the jaw and tightening the lips as it often produces uncontrolled constriction around the vocal cords. Achieve a loose jaw by bending your head back and placing a finger between the upper and lower jaw. Keep this position of the jaw as you sing. The lower jaw should be pulled backwards relative to the upper jaw. Be sure to open the mouth wider on high and low notes than on notes in the middle part of the voice.

Whilst avoiding tightening the lips, it is also important to form vowels with the tongue without altering the shape of the mouth too much. Consonants on the other hand are usually produced by narrowing the vocal tract and by tension in the lips, but as you do not stay on them for very long in singing they do not impair singing. It is important to be able to release the tension immediately going from consonants to vowels.



Four vocal modes

The use of the voice can be divided into four vocal modes: Neutral, Curbing, Overdrive and Edge (formerly 'Belting'). The modes differ by having different amounts of metallic character. Most singing problems occur because of incorrect use of the modes. Each mode has a certain character, as well as advantages and limitations. To avoid mistakes and technical problems it is important to know and control the modes, to use their advantages and to respect their limitations. It is also important to be able to change freely between the modes in order to make the most of their advantages. You can change smoothly or make abrupt changes to achieve vocal breaks. Each of the four vocal modes should be trained individually and in different ways. Remember to obey the three overall principles regardless of the mode.

Neutral

Neutral is the only non-metallic mode. There is no 'metal' in the sound. The character is often soft, like singing a lullaby. Neutral is the only mode where you can sing using a breathy quality voice without causing damage. The two extremes of Neutral are called 'Neutral with air' 55 and 'Neutral without air' 56. For the sake of clarity, both extremes are sometimes shown individually. Neutral is found by establishing a loose jaw.

In popular music Neutral with air is used for quiet passages when a breathy sound is wanted. In classical music Neutral with air is only used as a rare effect. In everyday life Neutral with air is used when you speak in a breathy voice or whisper.

Neutral without air is often used in popular music when you want a sound without metal and yet be clear and non-breathy. In classical music Neutral without air is used by both men and women when singing quietly, i.e. in pianissimo and 'thinning' (the volume of the note is gradually decreased without the note losing its quality). Women use Neutral without air in classical music when they sing in the high part of their voice, regardless of volume. In everyday life Neutral without air is used when you speak quietly with no breathiness.

All parts of the voice, all vowels and all sound colours can be used in Neutral by both men and women. Generally, Neutral is a mode with a quiet volume from very quiet (pp) to medium loud (mf). Very powerful volumes (ff) can only be obtained in Neutral without air in the high part of the voice. In the West, Neutral is the most commonly taught mode in singing tuition (for women), and is often used in church and school choirs (see 'Neutral' on page 87).

Curbing 

72. Curbing is the only half-metallic mode. There is a slight 'metal' on the notes. Curbing is the mildest of the metallic modes. It sounds slightly plaintive or restrained, like when you moan because of a stomach ache. Curbing can be found by establishing a 'hold'.

Curbing is used in popular music when the volume is around medium and when a certain amount of metal is wanted on the notes such as in soft soul or R 'n B. Curbing is used in classical music by men when singing medium volume (mf) in their entire range and when women singing loud (f) in the middle part of the voice and sometimes in the low part of the voice. Curbing is used in everyday life when you wail, moan, or whine.

Men and women use Curbing through all the various parts of the voice. The sound colour can be altered quite a lot. All vowels can be used. However, in the high part of the voice, the vowels have to be directed towards 'O' (as in 'woman'), 'UH' (as in 'hungry'), and 'I' (as in 'sit') to stay in the mode. The volume in Curbing stays more or less in medium compared to the other modes, ranging from medium quiet (mp) to medium loud (mf). It is not possible to sing very quietly and very loudly in this mode (see 'Curbing' on page 96).

Overdrive 

97. Overdrive is one of two full-metallic modes. There is a great amount of metal in the notes. The character of Overdrive is often direct and loud, like when you shout 'hey' at somebody in the street. Overdrive can be found in the beginning by establishing a 'bite'. It is usually used when speaking or singing loudly in the low part and middle part of the voice.

Overdrive is used in popular music when the volume is loud and when a great amount of metal is wanted on the notes, such as in rock music. In classical music it is used by men when they sing medium loud to very loud (f-ff), and women use Overdrive in classical singing only in the low part of the voice if at all. Overdrive is used in everyday life, for example when shouting.

Overdrive is the most limited mode in terms of pitch, especially for women. The upper limit for women is D5/Eb5 and for men is C5. There is no lower limit. All vowels can be used in the low part of the voice, but in the high part of the voice you can only use 'EH' (as in 'stay') and 'OH' (as in 'so'). The sound colour can, however, be altered to some extent. Although the volume in Overdrive is mostly loud, relatively quiet volumes can be obtained in the lower part of the voice. The higher the notes, the more distinct the loud, shouting character becomes (see 'Overdrive' on page 106).

Edge 

120. Edge (formerly 'Belting') is the other full-metallic mode. There is a great amount of metal in the notes. The character of Edge is light, aggressive, sharp, and screaming, like when you imitate a diving airplane. Edge can be found by twanging the epiglottic funnel (e.g. sounding like a duck).

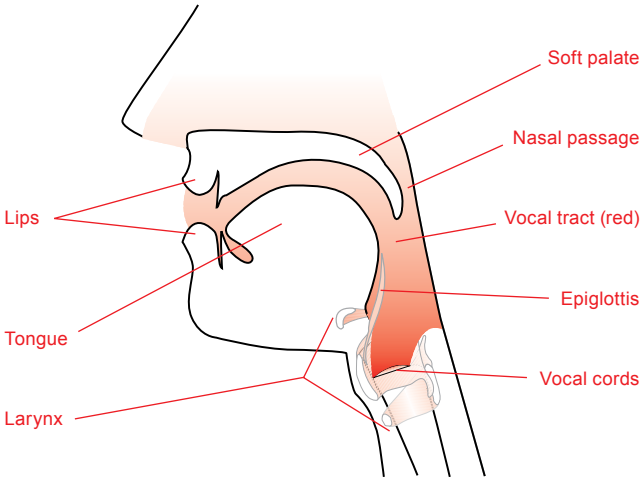
Edge is used in popular music in some styles, and mostly in the high part of the voice when the volume needs to be very loud and with a great amount of metal on the notes, such as in heavy rock and gospel music. Edge is used in classical music when men sing very loudly (ff) often in the high part of the voice such as the high C of a tenor. Women do not use Edge in classical music. Edge is used in everyday life when you scream.

Both men and women can use Edge in all parts of the voice. Only twanged vowels can be used as the twanged epiglottic funnel is a condition of Edge. This means that in the high part of the voice you can only use 'I' (as in 'sit'), 'A' (as in 'and'), 'EH' (as in 'stay'), and 'OE' (as in 'herb'). The sound colour can only be altered a little. In the high part of the voice you must not alter the light and sharp sound colour. The volume in Edge stays mostly loud. The higher the notes, the more distinct the screaming character becomes (see 'Edge' on page 116).

Sound colour

All modes can be lightened or darkened, though some more than others. The sound colour is created in the vocal tract, which is the space above the vocal cords extending to the lips and including the nasal passages. The form and size of the vocal tract is of great importance to the sound colour. All singers have different vocal tracts so all singers have their own personal sound colour. If the vocal tract is large, the sound colour will be darker with more 'body' to it. If it is small, the sound will be lighter and thinner. The shape of the vocal tract can be altered in many directions so there are many ways of changing the sound colour of your voice.

Remember to obey the three overall principles and to be in control of the chosen mode before changing sound colour.



You can change the shape of the vocal tract by changing the:

- shape of the epiglottic funnel 163 164
- position of the larynx 165 166
- shape of the tongue 167 168
- shape of the mouth 169 170
- position of the soft palate 171 172
- opening or closing of the nasal passages 173 174

Each of these factors can and should be trained individually in order to get to know each factor's influence on the sound colour. Once you can control each factor individually they can be combined in different ways to achieve different sound colours.

Effects

These are sounds which are not connected to melody or text but are sounds that underline the expression or style of a singer. Many effects are produced in the vocal tract. All singers are different. Consequently, every effect must be specifically designed to each singer, taking into account their anatomy, physiology, fitness, energy level, and temperament.

Before you start working with effects it is important that you can control the three overall principles, the chosen mode, and the sound colour.

Effects might be:

- Distortion 222
- Creak 234 and creaking 240
- Rattle 245
- Growl 252
- Grunt 270
- Screams 276 277 278
- Intentional vocal breaks 284
- Air added to the voice 67
- Vibrato 295 296
- Ornamentation technique (rapid runs of notes) 316

Trust yourself

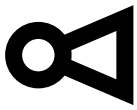
Some of the main rules that cannot be repeated too often are:

- Singing must always feel comfortable.
- The technique must have the intended effect right away otherwise you are not working with it correctly.
- If an exercise hurts, feels uncomfortable or feels wrong, it IS wrong. Only you know how it feels so trust your feelings.

3 overall principles

- support
- necessary twang
- Avoid protruding the jaw and tightening the lips

CHOOSE VOCAL MODE

NEUTRAL	CURBING	OVERDRIVE	EDGE
			

CHOOSE SOUND COLOUR

DARK — LIGHT

perhaps CHOOSE EFFECT

- distortion
- creak and creaking
- rattle
- growl
- grunt
- screams
- vocal breaks
- air added to the voice
- vibrato
- techniques for ornamentation

COMPLETE VOCAL TECHNIQUE is a pioneering and innovative approach, highly useful for anyone interested in the voice, professionals as well as beginners. The techniques can be used in all styles of singing.

This book is based on the most current and updated research in vocal technique. 'Complete Vocal Technique' is recommended by singers, singing teachers, actors, speech therapists and doctors internationally.

Cathrine Sadolin is one of the leading voice researchers in the world. Her 25 years of research across all vocal styles, combined with her own experiences as a professional singer, has inspired innovative thinking within the field. She is regularly invited to voice conferences around the world, and contributes to the ongoing voice and vocal technique research. She has specialised in solving vocal problems, repairing worn out voices, and teaching advanced singing techniques within all musical styles. She has worked with theatres, operas, and record companies, both as a voice coach and as a vocal producer. She has performed all over Europe, as a classical, folk, and rock singer, and has released several albums.

In 2002 Cathrine launched a 3-year Singer/ Teacher Diploma Course for professionals who want to improve as singers as well as singing teachers. In 2005 **COMPLETE VOCAL INSTITUTE** (CVI) opened in Copenhagen with branches in many countries. CVI is today the largest singing institute for professional and semi-professional singers in Europe.

SHOUT
Shout Publications • Hausergade 3, 5
DK-1128 Copenhagen K • Denmark
e-mail: cvi@shout.dk

ISBN 978-87-992436-1-7

www.completevocalinstitute.com

Reviews

"This is an impressive book with great graphics and descriptions written for anyone to pick up and start playing with... A great knowledge for the voice... There are various glowing reviews on the back of the book and a few include "bible", and as one definition of the word bible is "a book that is considered an authority on a particular subject" then I would have to agree."
- '**Communicating Voice**' British Voice Association

"With her unorthodox and energetic approach to the mysteries of the voice, Cathrine Sadolin has succeeded in breaking apart fossilized myths, as well as providing loads of singers, amateurs as well as professionals, with the necessary tools to enable them to better understand the various functions of their voices. Complete Vocal Technique is an impressive and ambitious release filled with explanatory illustrations and carefully prepared graphics."
- '**Soundcheck**' Music magazine for professional musicians

"Complete Vocal Technique contains material for both singers as well as teachers on all levels, classical as well as rhythmical... Cathrine Sadolin is a trouble-shooter with vast experience. The book exudes her curiosity and engagement in her trade, which means that one is smitten with enthusiasm and thereby eager to engage in every proposed exercise. Her background research is solid and her huge practical experience has liberally coloured the book. Her tenacity and persistence to create a general technique and a common vocabulary that encompasses all genres, rhythmical as well as classical, is unusual and worthy of praise. This is to be praised immensely and therefore we most wholeheartedly recommend this book that in the most beautiful manner demystifies the process of singing."
- '**The Musician**' Magazine of the Danish Musician's Union

"A bible for vocal coaching and vocal care... An epoch-making book on singing techniques... A very dashing and competent instructional book on singing technique... Many illustrative drawings that indeed qualify the book as being for self-study... Easily understood and easily accessible for everybody with an interest in singing... The book simply covers everything a singer needs to know and encompasses all styles and genres from classical to rhythmic singing... A revolutionary publication that will give huge reward to everybody that is interested in the use and the function(s) of the voice."
- '**Djembe**' World, Music, Dance & Art

"Eminent new thinking... The book gives a comprehensive and detailed treatment of all possible sides of singing technique... Very clear and easy to use... easy to read layout... Many good pedagogical ideas to use... It is really complete. I can warmly recommend the book to everybody who teaches music. It is a must!"
- '**Gymnasiemusik**' Magazine for music teachers at colleges

"The new bible for all singers... According to Cathrine Sadolin everybody can learn to sing, and I believe it to be true having read Complete Vocal Technique. One of the books most undisputed qualities is the incredible versatile understanding and consideration of the various differences that the readers may be subjected to. Even those who are heavily hit by the but-I-just-can't-sing-syndrome will find understandable help here. The pedagogical and positive way in which she conveys her knowledge gives the reader a feeling that Complete Vocal Technique is written for you, and only you, even though it could (and most definitely ought to) become common ground. I will warmly recommend Complete Vocal Technique to everybody interested in expressing him or herself through the voice."
- '**Line Out**' Magazine for musicians