

## **Facts You Should Know About Your Dentures\***

This handout has been written to provide a brief and simple to understand discussion about denture experiences. Dentures are not for the replacement of teeth; rather, they are constructed due to the absence of teeth. Patients experience varying levels of challenges with dentures; some adapt with minimal fuss and adjustments while others may be plagued with ongoing problems for a long time. In any event, the use of this handout, in cooperation with your dentist, may help provide you with answers and solutions with your denture problems.

### **Terminology and Examination**

Denture refers to the prosthetic appliance. The gum-colored denture base includes everything but the teeth. The upper flange is the base that extends into the fold of the cheeks and the upper lip, while there are two lower flanges; the outside and inner flanges. The outside flange is similar to the upper flange as it extends into the folds of the cheeks and the lower lip. The inside flange extends to the floor of the mouth. Adjustment implies that your denture or mouth needs attention and you must return for necessary service.

Settling indicates that the dentures have changed from their original position. Pressures applied to the teeth and the nature of the foundation upon which the dentures rest will cause them to settle. Upper dentures settle upward and backward, while the lower settles mostly downward. In appearance, the upper denture settling is noticed by changes in the upper lip, and the teeth tend to move out of sight. Lower settling is less pronounced. This overall effect from settling is more noticeable from side view as the nose and chin are closer together. Settling is a continuous process and reflects the changes taking place in the mouth. It is greatest during the healing period following extractions, and tapers off as one gets older.

The gum represents the tissues covered by the dentures. The ridge is that which remains of the bony structure that once held the natural teeth in place. Denture teeth are very different from natural teeth. Natural teeth are held firmly in place by a strong, bony socket. Forces applied to natural teeth are dissipated through the roots and into strong bony structure. Dentures rest on the gum and any force applied against the denture teeth is dissipated to the gum. Instead of each tooth held firmly in a socket, denture teeth are on a denture base. The bases

move or shift because they are resting on movable tissues. This situation is totally different from a natural dentition.

People with natural teeth are able to exert great force against anything between the teeth (100 – 200+ pounds per square inch). With dentures, that force drops to about 25. Studies have shown them to be only about 10-20 percent as efficient as natural teeth.

Keeping dentures in place is seldom easy. Surface tension and partial vacuum are two factors that help to hold dentures in place. Seal area of an upper denture permits the creation of a partial vacuum and is located at the back border of the denture base. Seal area of a lower denture is established when the floor of the mouth is in contact with the inner flange of the lower denture. Since the floor of the mouth is controlled by the movements or positions of the tongue, maintaining a good seal for the lower denture is often difficult and in many cases impossible.

Your dentist depends on you and your ability to adjust in order that these dentures can function effectively. No two mouths are alike. Many of them present with difficulties that will limit your dentist's ability to construct dentures. Many patients have conditions, dentally and medically, that make it extremely difficult to adjust to dentures.

Most patients expect their dentures to look good, to wear them with comfort, and to be able to eat almost everything. It is unfortunate, but equally true that dentures are going to be a very trying and discouraging experience for many patients. Remember, dentures have been constructed because of the loss of an organ of the body; much like an artificial leg replaces a lost limb. Dentures, unless aided by dental implants, are not securely held in position and are easily displaced. Nevertheless, most patients enter their first denture experience fully expecting that they have simply exchanged their own teeth for something as good or even better. Nothing is further from the truth. Learning to wear dentures will need a positive attitude, realistic expectation and perseverance.

Two common sources of trouble are: the mouth structure itself and the other is the patient's psyche. Difficult mouth structure may be due to: size and shape of ridges, minimal mouth opening, type of soft tissue, excessive bone loss,

relationship of the ridges one to the other, the absence of a normal salivary content, bony protuberances (bumps), severe undercuts, relation of the hard palate to the soft palate and so many more. No two mouths are alike; no two dentures are alike. Thus, no two results are alike.

The patient's psyche: there is no way to measure the ability to adjust to something new and entirely different such as dentures. It remains an unknown factor until the patient is actually wearing the dentures. Careful examination of the patient's mouth does not always reveal conditions that may later cause difficulties with the wearing of the finished dentures. Some patients have difficulties with certain conditions that apparently do not cause trouble for other patients. Being human and vulnerable to wishful thinking, most dentists are prone to hope for the best.

### **Appearance with Dentures**

The majority of patients are usually pleased with their new dentures. There are, however, some who do not present a pleasing appearance. Some just are unhappy. Some people wear their clothes well or seemingly look good in anything. The same is true of people who wear dentures. Some patients have very short and active upper lips.

This results in an excessive denture display during normal lip activity. Complicating this, some have very prominent bony ridges. The esthetic result is usually not good. Then there is the patient with the long, inactive upper lip. This one will probably never show teeth even with a wide smile. They look as if they have no teeth. Some people have extremely large mouths which are completely out of proportion to the rest of the face. Dentures in these people are very conspicuous every time they open their mouths. Having abnormally receding or prominent chins also present appearance issues. Some patients insist that their own teeth were small, white and did not show very much. Nothing looks more artificial than denture teeth that are too small or too light in color. The fashion in 21st century America is Hollywood white (i.e. toilet bowl white).

Every dentist is confronted with patients who want to look much younger than they are. These patients are laboring under the impression that a general face-lifting can be accomplished with dentures. Denture teeth and bases are placed

far from what is rightfully their natural position in an effort to try to remove all the wrinkles from around the mouth. This is unnatural and can cause tissue damage. Dentists are concerned about restoring mouths to their normal appearance. To attempt anything else is expecting more from dentures than is ordinarily possible.

### **Fullness**

Dentures, of necessity, are much more of a mouthful than natural teeth. The outside flanges that are necessary to help hold the dentures in place will create fullness in the cheeks and lips. The inside flanges of the lower denture and the roof of the upper denture will have a tendency to crowd the tongue. This feeling of fullness usually passes within a week or two so it is best to wait before asking your dentist to reduce certain areas.

### **Speech**

During the first few days, some patients sound as though they have a mouthful. Some have trouble with their "s" sounds and should practice on some of the troublesome words. When one has new dentures, it seems that almost everyone is listening for some speech defect. The truth is that very few people have perfect speech, even with their own teeth.

### **Wearing New Dentures**

There will be some variations of opinion, and it is possible that your dentist will like to give specific directions for your particular mouth. But, generally, wear the dentures until mealtime and remove them after eating, cleaning both dentures and your mouth (cheeks, tongue, gum). Replace them back in the mouth until bedtime. Go over the hygiene instructions for your dentures and your mouth as instructed. Keep the dentures in a container with water and denture cleaning tablet. Do not allow them to get dry because plastic can warp. Place dentures in the mouth in the morning and have breakfast consisting of soft foods. Remove the dentures for cleaning, and clean your mouth as well, and place them back. Have your soft lunch. If your mouth develops soreness, remove them as soon as practical and allow your mouth to rest. If soreness persists, leave them out until

you can see your dentist for adjustment. If it has been necessary to leave them out for a period of time, be sure to place them back in your mouth a few hours before your dental appointment, so that the dentist can see the soreness and make an accurate adjustment.

### **Bad Chewing Habits Acquired Before Dentures**

There are two habits some patients acquire before they have dentures, and the continued use of them with complete dentures is very undesirable. Before losing all of one's teeth, many patients keep their upper and lower front teeth long after the back teeth have been lost. Of necessity, they acquire new habits of chewing. Chewing only with the front teeth is not normally a natural function. The tongue and cheeks learn new habits. These habits are detrimental when complete dentures are made. Chewing of food should be done with the back teeth. Attempting to chew food on the front teeth of dentures will dislodge them and create soreness. This habit must be broken if one is to enjoy successful denture service.

The other bad habit results when one wears an upper denture with only the lower front natural teeth left. Not only are the unnatural chewing habits developed, but some develop the habit of holding the upper denture with their tongue. The denture becomes loose, and continued striking of the lower natural teeth against the denture will cause bone and gum damage to the front upper ridge. The tongue habit will be a problem when a lower denture is fabricated as it will have a dislodging effect.

### **Dentures at Bedtime**

It is generally recommended to remove them and have them soaked in the cleaning solution. This also gives the tissues pressure relief.

### **Instructions about Eating**

There are some habits of eating one will have to change, and of necessity there are new habits one should acquire.

Those who feel they can continue blissfully along as usual are in for a rude awakening. Learning to eat with new dentures requires time and patience. First,

before attempting to take food into the mouth, bring the teeth together and swallow. This allows seating the dentures and brings the tongue into a normal position.

Next, open your mouth slowly and only wide enough to receive small quantities of food. Unlike in the natural dentition wherein one tends to favor a chewing side, the denture wearer will be better served by learning to move the lower jaw in a straight up and down movement. This will minimize shifting and unseating of the dentures.

Avoid foods that are hard, tough, sticky or require considerable chewing. Vegetables should be cooked. Doughy foods like bread, biscuits, and buns will stick to dentures and should be eaten along with fluids. Meats should be prepared in a manner that will minimize hard chewing. One of the eating habits that must be changed is the way one ordinarily eats sandwiches, apples, cookies, etc. A denture wearer cannot bite and tear food with the front teeth as in a person with their natural teeth. This biting, pulling and tearing action will dislodge the dentures. Some might be able to do so but they are in the minority. At first, avoid sandwiches that are made with sticky (peanut butter) or hard to chew (salami) foods. Cut the sandwich into small pieces. Close your mouth and swallow, open and place a small portion inside. Hold the sandwich against the upper or lower front teeth, whichever is more comfortable, and then slowly bring the teeth together through the entire sandwich, at which time you can pull your hand away from your mouth. Chew slowly in an up and down motion avoiding side-to-side excursions. In time you should find yourself quite proficient.

### **Vegetables and Fruits**

Leafy vegetables are difficult to chew. Cut them up in very small pieces should you attempt to do so. It's best to cook all vegetables. The desire to eat corn off the cob, an apple or celery is understandable but sadly, these are restricted from denture patients. Any food that requires greater mouth opening or exertion of pressure should be excluded or you should be prepared to make a sensible compromise. As such, you can eat corn, but not off the cob; apples, but in slices; celery cut into small pieces.

### **Liquids**

Some patients complain that their dentures loosen, especially the lower, when attempting to swallow liquids. This is more observed with coffee, tea or something they like to taste versus water because many will hold the liquid in the mouth for the purpose of tasting. If you do hold the liquid in the mouth, you will loosen the dentures. You must learn to break this habit and keep the swallowing process continuous.

### **Tasting Foods**

Some people complain about food tasting less good with dentures than without. This may be justified but there is nothing that can be done about it. Although the taste buds are located at the back of the tongue, the plastic base at the roof of the mouth is a thermal insulator and may have some effect on the tasting of foods or beverages.

### **Food Collecting Under and Around Dentures**

Food can and will collect under and around dentures but not because they are ill fitting.

Swallowing food is a function that starts in the mouth. The tongue, in a sweeping movement backward, starts the food on its way. Any food that by its nature will spread or float around the mouth, into the cheeks and around the teeth, will not be picked up on one or even several movements of the tongue. In order to clear the mouth of all the food, one would have to rinse thoroughly. This is true for all people with their own natural teeth.

The same exists for denture wearers and now new areas have been added where food will collect. Food will find its way under any lower denture, while upward and backward movements of the tongue, as in swallowing, will force food under any upper denture. Food adheres to plastic surfaces more easily than to mouth tissues. The tongue normally keeps natural teeth free of food by sweeping food in order to be swallowed.

This movement is greatly limited by the lower denture and so it is impossible for the tongue to cleanse the mouth efficiently.

Denture flanges occupy space where normally food would collect. So, try eating smaller amount more slowly and do your best to clear your mouth before

taking in more food. The need for cleaning your dentures and your mouth cannot be overemphasized.

## **Saliva**

Saliva is very essential to normal mouth functions. It is seldom noticed when natural teeth are present. The flow of saliva is normally stimulated through the sense of smell or when food is placed in the mouth. Denture insertion will ordinarily increase the flow of saliva for a few days. Some will have saliva collect under the upper denture since salivary glands are covered by the upper denture. During the normal function of swallowing saliva, one brings the teeth together and, with the lower jaw braced against the upper jaw, the actual swallowing starts. This is done several hundred times a day to keep excessive amounts from accumulating underneath dentures unseating them. Lack of saliva due to medications and various medical conditions, like Sjogren's Syndrome causing xerostomia, present more serious problems. Moisture is needed for the usual factors of retaining dentures. The absence of saliva often causes cheeks and lips to stick to the denture base in an uncomfortable manner. Petroleum jelly applied over the surface of the denture can alleviate the latter problem. Frequent ingestion of liquids, particularly water, is advised not only to quench thirst but to provide moisture to the mouth tissues and reduce frictional irritation. Consultation with your medical physician is advised.

## **Gagging**

Some patients are troubled with gagging, and most of it is just a passing condition. For some, it will always be a problem. Apprehension will cause gagging, and some do so because of a large mass of material in their mouths. There are those who gag when impressions are being made, because of the bulkiness of the impression material. The normal thickness of the finished dentures usually eliminates this gagging.

Some patients gag because they insist that the upper denture extends too far back in the mouth. This may or may not be the cause. Your dentist will reluctantly shorten the back border but there will come a time when he will definitely be unable to do so. If considerable trimming is done, the dentures may not be retentive any longer. Use of excessive adhesive pastes or gels is cautioned.

There are some patients who experience a momentary gagging each time dentures are inserted. This may continue indefinitely. And there are those who never seem to overcome gagging and are unable to wear dentures. Most chronic gaggers have retracted tongues; these are also referred to as awkward, undesirable or poor tongue positions.

The importance of the tongue position is not only helpful for the tongue in carrying out its many functions, but it also indicates the position of the floor of the mouth. A seal or partial vacuum must exist in the lower denture. To do so requires the inside flange of the lower denture to be in contact with the floor of the mouth. When the tongue is in a retracted position, the floor of the mouth is downward and out of contact with the flanges. Thus, the seal is not present and the denture is loose and "floats." Retracted tongue positions can prevent successful denture service even with the best constructed dentures. There is nothing the dentist can do but talk to you about it. Your ability to wear lower dentures will depend on your maintaining a normal tongue position. Speech therapists may provide tongue exercises. Dental implant therapy is worth serious consideration.

### **Soreness**

Too many patients associate a good denture with one that needs little or no adjusting and by the same reasoning; several adjustments indicate an ill-made denture. This is false. Soreness usually goes hand in hand with new dentures. The extent of impressions is limited by mouth opening, folds of soft tissue and variable landmarks. Some landmarks in certain mouths are difficult to see. Where decayed teeth are yet to be extracted, the dentist has had to use his own judgment in determining the extent of the impression. These conditions, plus the fact that all new dentures settle explain why one may have soreness which will require adjustment of the prostheses.

### **Cheek Biting**

Cheek biting with new dentures is not uncommon. It in no way implies that the teeth are too wide or incorrectly positioned. It can be the result of flabbiness of cheek muscles or your own chewing pattern. The dentist will generally round over the outside edges of the teeth.

## **Fit of New Dentures**

Any well-fitting denture can be moved. They are fitted to a soft-tissue foundation. Any solid mass that rests on a movable foundation will change position when pressure is applied. The extent of movement varies depending upon the displacement of the mouth tissues.

Some patients say that the front part of the upper denture does not contact the tissue. With new dentures, this is very unlikely. The patient's ability to judge whether or not the denture is in contact is limited by the sensory nerve supply to this area. This means that there are not enough nerve endings in this area to indicate to you that the denture is in contact. Burning sensations on the roof of the mouth involve a nerve condition beyond the dentist's control.

The complaint of being able to lift the lower denture with the tongue is quite unreasonable. Everyone can do so, because lifting the tongue breaks the seal with the lower inner flanges. With the seal broken, there is nothing to prevent the tongue from lifting the lower denture off the ridge. Dental implant attachments are the current choice for securing the lower dentures.

The word tight should never be used in reference to lower dentures as they are not tight in the sense we commonly use the word. A patient enjoying successful denture service has a lower denture that stays in place during most of the mouth functions. Patients getting along well with lower dentures have no problem removing them. They are easily dislodged by the tongue and can be removed from the mouth with no effort, which proves that they are not fitting tightly.

## **Denture Clicking**

The majority of people who click denture teeth are not aware of this. Clicking usually bothers others far more than it does the patients. There are those who click as a result of nervousness. The patient often being unaware of this will resent or even deny they are guilty of clicking their teeth, and the only sensible treatment is self discipline.

A loose or floating lower denture is another reason resulting from a retruded tongue position. This is predominant with older patients. Unless implant therapy is sought, there is little the dentist can do. Age is another factor. Some older people develop tremors or lose some of their muscular control for which the dentist can do little.

### **Factors That Limit Efficient or Comfortable Denture Service**

The most common factor is a loose lower denture. The patient who has a limited lower ridge that is flat has a lower denture with no outside flanges. The denture can easily be displaced and learning to chew in a straight up and down stroke is absolutely essential. These patients must learn to accept more than normal limitations. Clenching occurs in all age groups and creates chronic soreness which can result in an amazing loss of bone in a relatively short time. Many patients will insist they are unaware of this. Reasons for clenching are numerous and varied. Regardless, it must be stopped. Adjustments by the dentist to the denture may be futile because the clenching is a problem ordinarily beyond his ability to control. If this were strictly a dental problem, one would be told to keep the lower denture out. If you have made a sincere effort to avoid clenching but to no avail, you should see your physician.

Another factor of chronic soreness of the lower ridge is with patients whose alcoholic intake is great. We're not talking necessarily about alcoholics. Tissues lose much of their resistance to pressure when the intake of alcoholic beverages is high. Soreness is more severe when there is excessive loss of ridge. So moderate your alcoholic intake or continue to suffer with a sore mouth.

### **Sneezing, Coughing and Yawning**

Sneezing and coughing create abnormally high air pressures against the dentures and result in their dislodgement. Yawning creates muscular pressure against dentures which also displaces them.

### **New Dentures for Old**

Most patients wear one set of dentures too many years before having them replaced. The concept that dentures are made to last a lifetime is false. Dentures, like any commodity, will wear out. Their efficient usefulness to a

patient has definite limitations in terms of time. The value of dentures to a patient is limited by: changes that occur in the patient's mouth and the actual physical wear to the denture. The tissues covered by the dentures are constantly changing. The changes are of a destructive nature and result in loss of available tissue for denture support. Ridges get smaller. Upper tissue changes in an upward and backward direction while it is downward for the lower tissues. The chin comes closer to the nose and the profile is more forward. The teeth are no longer coming together as initially constructed. The amount of change over time varies among patients. Changes occur more rapidly with younger patients and slow down with older patients. Many patients continue to wear dentures past their usefulness and hasten the destruction of their ridges. Unfortunately, this is not usually accompanied by pain; so, periodic exams are needed.

Ridges become smaller and it becomes necessary to increase the distance from the base of the nose to the chin to maintain patient's appearance. This means more bulk and leverage for the new dentures. The old ones are inefficient and may be damaging, yet feel fine to the patient for the changes are slow and the patient has accommodated. Adjustments are in order but patients are bothered by this necessary inconvenience constantly comparing the old with the new. Patients have much to gain and must accept the conditions needed to achieve a successful result.

## **General Health**

The overall medical health affects the mouth tissues. The amount and type of saliva, the texture and resistance of the mouth tissues, the ease with which injury to mouth can occur, and the length of the healing period are influenced by a patient's general health. Diabetes, high blood pressure, ulcers, nervous conditions, etc. create problems for denture wearers. Poor nutrition leading to weight loss will alter the size of the ridges. Any extended illness will affect the fit of complete dentures.

## **Age**

Age presents many problems, especially when one is required to exchange old habits for new or adjust to something entirely different. The slowing of reflexes and a general muscular deterioration affect one's adaptive capabilities. Yet,

there are older patients who can do very well with new dentures. Again, the psyche, positive attitude and perseverance will serve one well.

### **Cleaning Dentures**

Dentures need cleaning upon arising, after each meal, and before retiring. There are several denture cleaners available today in the form of pastes or creams which can be used with ordinary toothbrushes or denture brushes. Do not exercise excessive force brushing the dentures as you can mechanically abrade them. Also, keep them low to the sink or place a towel at the bottom to cushion the fall should the denture slip off your hands. Overnight soaking with denture tablets in a container with water is good as a supplement. Soaking dentures in bleach or vinegar, while good for destroying bacteria, will tend to whiten the gum colored base over time.

### **Single Upper Dentures Opposing Lower Natural Teeth**

This is a unique situation that plagues both dentist and patient. The conditions under which a single upper denture functions against natural lower teeth or in a combination with a lower removable partial denture are different from upper and lower complete denture wearers.

The pressures applied to the upper denture in these cases are far greater. The upper denture can easily be dislodged and tissue changes occur at a faster rate. A slight deviation from an ideal mouth magnifies itself when an upper denture is subjected to great forces of natural teeth. Patients tend to eat anything and see no reason to change their eating habits. The same limitations that are placed on upper and lower dentures apply to the single uppers. Failure to heed this warning will only result in trouble.

### **Immediate Denture Service**

This is a service that starts before the last teeth are extracted and extends only to the time when the mouth has completely healed, at which time, further treatment is necessary. The principal advantage of this is that you are not without teeth during the healing period. There are routine and definite instructions a patient may be given but specific ones may be prescribed by the dentist for your particular situation. Swelling will occur and in various degrees

which will affect the appearance of an individual for several days. Use cold packs intermittently especially during the first three days. Pain medication may be prescribed by the oral surgeon.

The immediate dentures should be worn day and night for the first three days except to remove them for denture and mouth cleaning. This is especially true for the first 24 hours. Leaving the dentures out will result in swelling that will cause reseating to be either impossible or very painful. Rinse your mouth gently with a mouthwash (preferably non-alcoholic), a salt water solution, or, if instructed, a prescription chlorhexidine rinse. Brush the mouth tissues where possible with toothpaste; cheeks and tongue areas plus the ridges unaffected by the extraction process. You do not want to disturb the blood clot. As they heal, brush all areas. Minimize the use of denture adhesives. Adjustments during the first few days and ensuing weeks will vary with each individual. Be on a soft food diet for the first week or two. Common sense dictates that any pressure applied against the sockets of recently extracted teeth can be painful.

For the next 8-12 months, changes in the denture supporting tissues take place. As the mouth heals, the ridges decrease in size and the dentures will get looser. Intermediate maintenance effort is related to the need to maintain the fit of the dentures and the stability of the bite. Relines of the dentures with tissue conditioners will be needed. You may now be ready with continuing care with a new denture set or more elaborate implant treatment.

## **Summary**

It is hoped that this handout can serve to alert one to the many facts concerning the denture experience. Most patients who have anything but an ideal mouth structure, plus the necessary normal tongue position have had to work at learning to wear their dentures. The most skillfully constructed dentures do not by themselves ensure patients of successful denture service. Denture service has to be a two-party operation and the degree of success will depend a great deal upon the understanding and cooperation of the patient.

Some patients become very proficient with their dentures and others who at best, have been only mediocre in most everything else in life, now insist that they must achieve the ultimate with their dentures. However, if your mouth structures are short of being ideal, then learn to accept a sensible compromise.

A final word: No one can fool Mother Nature. The human body, of which your mouth is an integral part, will not for long tolerate unreasonable demands or abuse. Sooner or later your mouth will show all the signs of “wearing out” long before its time. For your own good and for the well-being of your mouth listen to those who know and can advise you in such a manner that you can derive the maximum benefits from your dentures with a minimum of damage to your mouth.

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