

On  
Idiopathic Dyspepsia

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and becomes a source of irritation, and disturbance during the whole of its journey through the intestines.

Thirdly - The loss of muscular contractility and nervous energy in the Stomach consequent on over distension, the excessive use of alcoholic & other stimulants, and sedatives, have already been mentioned as frequent causes of Dyspepsia.

Fourthly A proper quantity and quality of the Gastric Fluids are necessary for the accomplishment of digestion, now Dr Beau-  
-mont established the fact, "that in health the Gastric secretion always bears a direct relation to the quantity of aliment naturally required by the system"; so that if more than this be taken there will be too small a supply of the Juice, for the digestion of the whole; and in the course of his attend-  
-ance on St. Martin, he observed that whenever a feverish state was induced by obstructed perspiration, or by stimula-  
-ting liquors, or by over loading the Sto-  
-mach; and that when influenced by fear, anger or other emotions depressing

or disturbing the nervous system the villous coat became sometimes red and dry at others pale and moist having lost its smooth and healthy appearance and as a natural sequence the secretion became vitiated impaired & suppressed. Again when an insufficient quantity of aliment to supply the wants of the economy is taken since it is believed that the quantity of Gastric secretion is in exact proportion to the requirements of the system, it necessarily follows that an excess of this acid secretion will be thrown into the Stomach and give rise to Dyspeptic symptoms.

## Symptoms.

As a general rule in no two cases do the symptoms exactly correspond; in fact the variety in the actual presence and combination of them is very great, but the leading ones as; Loss of appetite & Sense of load on the Stomach, Flatulence, Pain in the Epigastrium, Nausea & Vomiting, generally present themselves in an evident manner, or in such order, and degree as to establish a correct diagnosis.

The other symptoms which usually present themselves are; Sour taste in the mouth, usually worst in the morning, the mouth clammy and the tongue furred, the papillae enlarged and protruding through the foor, heartburn, vertigo and tinnitus aurium. Headache is a very constant symptom - Dr Warren divides the Headaches of Dyspeptics into two kinds, viz, that which occurs in the earlier digestion and when the food is in the stomach, which may be termed Stomach Headache; and that which takes place when the food has passed into the duodenum; both are usually attended with vertigo and tinnitus aurium.

The dyspeptic headache may however be confounded with headache arising from Cerebral Congestion, and may be distinguished from it by the absence of the Plethoric symptoms; as full oppressed pulse, throbbing &c which are present in the latter while the Dyspeptic Headache is usually described as a dull aching or racking pain often moving from one part of the head to another. Loss of appetite is not always present, and frequently we observe the opposite symptom as a ravenous, capricious, and uncertain appetite; though sometimes there is absolute distaste for or inability to take food.

Nausea and vomiting are most distressing symptoms, and unfortunately very common in confirmed Dyspepsia.

Flatulence is a very troublesome symptom, and is either dependant on the eating of some crude vegetable substance, or is generated in the stomach during the fermentation of indigestible food. It occasionally occurs when the stomach is empty coming on in some persons when a meal is delayed beyond the usual hour. Another view besides that it is caused by fermentation, is that it is

a secretion from the vessels of the stomach. In some cases the flatus contains albumen Sulphuretted Hydrogen which seems to be generated from albumen, and this has been relieved by confining the patient to a strictly farinaceous diet.

Ordinary cases of flatus however are of a different nature; the air appears to be the product of fermentation, and by avoiding such vegetables as are known to be susceptible of it, this troublesome symptom has been removed. Some persons acquire the habit of swallowing air. The flatus is <sup>then</sup> confined to the stomach does not pass into the intestines but is returned by eructations by the mouth.

Carbonic acid is frequently developed not only from the food but even the stomach itself & in its gaseous form occasionally proves a source of flatulent eructation; but the gas which is most frequently the cause of flatulence in nervous patients particularly is Nitrogen. This is frequently developed from the stomach in large quantities, in conjunction with Lactic and particularly Oxalic Acid. At other times the

Nitrogen is developed from the food, but from whatever source it usually gives much more annoyance than the Carbonic Acid, which from its stimulating properties to the Stomach usually escapes by the mouth, but from the passive character of the Nitrogen and the peculiar spasmodic constriction which usually accompanies its formation, it is retained and thus by distending the Stomach adds greatly to the distress of the patient.

Pain in the Epigastrium is one of the most common attendants on Dyspepsia as well as on organic affections of the Stomach; and consequently it is an equivocal symptom.

Hiccough that troublesome spasmodic affection of the Diaphragm is usually present. By some it has been considered as a disorder of the Stomach exclusively, and there is little doubt that the Spasmodic contraction of the muscle is excited by some irritation within the Stomach; but it is evident from the sound which accompanies the Spasm, that it is connected with some of the organs of respiration and this is obviously the Diaphragm.

## Diagnosis

The difficulty of diagnosing correctly the various morbid affections of the stomach is by no means slight; since not only are we for the most part ignorant of any direct means of ascertaining the physical conditions of this viscus during life, but the prominent symptoms of many of its different diseases are almost identically the same. Thus we find pain and soreness at the epigastrium not only common to most of the organic affections of the stomach - as to Cancer, simple ulcer, and inflammation of the mucous membrane; but also to many of the merely functional derangements, being generally present in the sympathetic vomiting of Phthisis, and in that of many diseases of distant organs as the Uterus &c &c. The diagnosis may however be assisted by remembering that, when the pain depends upon organic disease, it is generally most severe soon after

taking food, especially if this be heavy and indigestible; while when it is due to functional disorder only it is often relieved by food. Some authors lay great stress upon the difference in the character of the pain, in organic and functional disorder of the stomach but in many cases this is quite inappreciable -

Two other prominent and important symptoms "vomiting and flatulence" especially the former may be produced by a greater number of circumstances than those which give rise to pain but an attention to their history i.e. noting the time of the occurrence of the vomiting, and the nature of the vomited matters &c &c will usually lead us to a correct conclusion as to their origin -

## Pathology.

It can scarcely be doubted that a depression in the actions of the Stomach, or a diminution in its power, constitutes in many instances the basis of a distinct pathological state entitled to rank as a disease.

This state may depend upon the withdrawal of its ordinary supply of nervous influence or from some immediate sedative influence exerted upon it or from positive debility from the loss of excitability consequent upon excessive stimulation; in either case the Stomach performs its functions less appropriately - Dr Paris refers this pathological state of the Stomach to a defect of nervous action, and considers that it may be traced in general to, or identified with, errors in diet, affections, of the mind and irregularity of exercise. There are states of mind and habits of life, which, having no direct relation to the organs of digestion, yet exercise a material influence over their functions.

Mental distress, mental solicitude men-  
-tal toil, over much study, want of exer-  
-cise these are prolific sources of Dys-  
-pepsia by causing the withdrawal of the  
necessary nervous influence during digestion  
But the experiments of Dr Beaumont have  
demonstrated that even should these influ-  
-ences not be present that on the intro-  
-duction of aliment or food into the Stomach  
although in insufficient quantity "that  
the quantity of Gastric Juice secreted  
is equal in amount to that necessary  
for the digestion of that quantity of  
food required by the system conse-  
-quently if the food taken be of an  
indigestible nature it remains undis-  
-solved by the gastric juice and through  
its chemical affinities forms new  
substances among which acid and  
gaseous matters predominate. Thus  
from being a bland liquid, it becomes  
acid and irritating, & remaining in the  
Stomach in this state it induces  
vascular irritation of the mucous  
membrane, and Sympathetic nervous

# Dyspepsia.

## Introduction

Dyspepsia in the literal translation of the word means "difficult digestion"; but great confusion as to the application of the term has always existed. The name has been very vaguely used and a great variety of symptoms, arising from a proportionate number of morbid states have been associated under the name. It is indeed a misnomer, since it does not definitely express any particular pathological condition, but merely refers to a result which may flow from different and even opposite conditions of the Stomach.

So indefinite has been the use of the term, that many authors abstain from giving any definition; and Cullen contents himself with grouping together those symptoms which are usually the most prominent. His words are, "Anorexia, nausea, vomitus, inflatio, ructus, rummatio, pauciora saltem vel plura horum simul concurrentia plerumque cum alio adstricta et sine

irritation of the Muscular Coat, and thus though the nervous influence necessary for the formation of the Gastric Juice is present the Dyspeptic state is induced rather by excess of nervous influence.

The acids formed in the Stomach are derived from, the Blood circulating in the vessels supplying the Stomach, from changes occurring in the matters secreted by those vessels, or from the alimentary matters taken into that organ. The acids which have been found in the Stomach in this disease are Lactic, & Muriatic which are principally, derived from the Blood and from the fluids secreted from the vessels of the Stomach; Oxalic Butyric Acetic & Carbonic which are developed from the food during its imperfect assimilation.

The natural condition of the intestinal canal, with the exception perhaps of the Caecum, is either neutral, or occasionally verges towards slight acidity on the one hand, and slight alkalescence on the other. When therefore the contents of

the Stomach have contained a quantity of acid too great to be neutralized, it passes into the lower bowel, and there gives rise to many unpleasant symptoms.

One of the most common causes of loss of muscular power or energy in the Stomach, is undue distension. This may be proved from analogy of other Cavities, as well as from ample observation. The example of paralysis of the Bladder, from over distension, is perhaps the most familiar, but the same fact applies to the Rectum, and if this observation be applied to the Stomach, we shall easily perceive why in an over distended state of that viscus vomiting can scarcely be produced by the most violent emetic, and we shall readily understand by the same train of argument how greatly the muscular fibres may become permanently debilitated by the Repetition of such excess.

## Treatment

This is one of the most troublesome diseases to treat, and as an old author observed to treat this disease effectually, the physician should have suffered from it himself; since one who has had the good fortune never to feel as if he had a stomach can scarcely believe or even listen to the complaints of those who have experienced that sensation.

One great difficulty experienced in the cure of this as well as of most Chronic <sup>affections</sup> arises from the continued operation of the Remote Causes, and the unwillingness of patients to submit to, and persevere in, for a sufficient length of time a proper treatment. In many cases especially recent ones the omission alone of the Remote Causes as, errors in diet, injurious habits, sedentary occupations, omission of exercise is sufficient to accomplish a cure.

The first indication to be attended to is ~~the~~ to regulate the Quantity and Quality of the food. But the necessity of Dietetic

regulations has ever been opposed by that popular sweeping proposition that man is omnivorous. This is sufficiently evident from the structure of our teeth, and the extent of our alimentary canal being less than that of the vegetable eater but greater than that of the Carnivora. Broussonet is inclined to believe that man is more herbivorous than carnivorous he even remarks that his mixed diet should consist of Animal and Vegetable food in the proportion of 12 to 20. No rule however of this nature can be established; we have only to consider the different effects produced on the body by those two species of aliment, to perceive that the circumstances of climate, season, exercise, habit, age, and individual peculiarity must oppose such an attempt at generalization. When the Stomach itself is affected with Chronic Inflammation, or with morbid sensibility a diet restricted to farinaceous substances is sometimes attended with the happiest

consequences. Probably a false analogy has led some to suppose, that animal food ought to be refrained from, or taken in scanty proportion in merely Dyspeptic complaints. Animal food is easier of digestion in the Human stomach than vegetable food. It is nearer in its composition to the textures into which it is to be incorporated by assimilation - There is a less of "conversion" requisite. Indeed we may look upon the appropriation of vegetable matter by granivorous and granivorous animals as one stage of the process by which such vegetable matter is prepared for the sustenance of carnivorous animals. Man is indeed omnivorous; but most authors consider his organs of digestion most like those of the Carnivorous than the granivorous races and it is certainly true that vegetable food when the stomach is weak is followed by more flatulence, that is, is digested with more tardiness and difficulty than animal food. Nevertheless a mixture

of the two, of well roasted or boiled flesh or fowl with a moderate portion of thoroughly cooked vegetables is better suited for a feeble stomach than a rigid adhesion to either kind of aliment singly. The food should be nutritious and easy of digestion and as inclination and custom have a great influence on the actions of the stomach we should recommend the patient not to eat anything for which he has a distaste or which it was probable he could not digest.

The quantity of food to be eaten has in the same way been attempted to be reduced to a standard but nothing can be more absurd than to establish a rule of weight and measure applicable to all cases since individuals differ so widely from one another in their capacity for food. Dr. W. Philip remarks that the dyspeptic should attend to the first feelings of satiety. He says "there is a moment when the relish given by the appetite ceases, a single mouthful after this oppresses the stomach". But as Dr. Beaumont

very justly observes "It is not the sense of satiety for this is beyond the point of health-ful indulgence, which is the most salutary monitor of health, and effectual preventive of, and restorative from disease; but the pleasurable sensation of perfect satisfaction ease and quiescence of body and mind - This feeling is produced by the timely reception into the stomach of proper aliment in exact proportion to the requirements of nature, for the perfect digestion of which a definite quantity of gastric juice is furnished by the proper gastric apparatus."

The dyspeptic patient ought also to eat slowly and masticate his food thoroughly. Both facts are of great importance especially the former; for when we eat too fast we introduce a greater quantity of food into the stomach than the Gastric Juice can at once combine with; the consequence is that hunger may continue for some time after the stomach has received more than would be sufficient under other circumstances to produce the feelings of satis-

fraction before mentioned.

As to the quantity of liquids which each person may require this will depend upon individual peculiarity, climate, nature of the solid aliment &c. The quantity or volume of liquid taken "at one time" into the stomach is of material consequence.

It is evident that if the stomach be distended with fluid the digestion of its solid contents must meet with some impediment. Its bulk will stimulate the muscular fibres to contract too rapidly, and thus to expel the food before it has undergone the necessary changes; and the Gastric Juice being over diluted cannot act so well. And again if the bulk be very great it may induce temporary paralysis, or loss of power in the muscular walls of the stomach.

On the other hand if the food be too hard and dry it will require a larger quantity of liquid. Animal food for instance requires a larger quantity of fluids, than vegetable, and roasted than boiled meat &c &c. In this as in the case of solids one of the best tests of the necessity is afforded by the sensations of the individual. Water is undoubtedly the liquid intended

for man's daily beverage, and the one best adapted for his wants; though in some cases stimulants may be had recourse to in small quantities to facilitate digestion and the best for this purpose is a little dry sherry or pale brandy and water.

With regard to exercise some difference of opinion has existed as to its utility or mischief. Exercise in the open air seems to me essential to the well-being of every person; but its degree ought to be measured in relation to the strength, and habits of the individual, since excessive exercise will be found to be injurious either before or after a meal.

We have daily experience to prove that the husbandman may return to his hard labour, and the school boy to his gambols, immediately after a frugal meal without inconvenience or injury; but the same degree of exercise to a person of sedentary habits or of weak stamina would probably arrest and subvert the whole process of digestion. The influence of habit, in rendering exercise salutary or injurious, is shown in a variety of ways;

a person, who would suffer from the slightest exertion after dinner, will undertake a fatiguing labour after breakfast, however solid and copious that meal may have been.

But again should the valetudinarian eat when in a state of fatigue, he will certainly experience some impediment to digestion; but are we to argue from this that exercise is neither to precede nor follow a meal? we may as well subscribe to the opinion of Hieronymus Cardanus, who insisting on the advantages of perfect rest observes, that "trees live longer than men or animals because they never stir from their places." In this question as in many others the truth will probably be found between the two extremes. The interval between breakfast and dinner I believe to be the period for active exertion, and the enjoyment of it, when not attended with fatigue, will strengthen and invigorate all the functions of the body. But unfortunately, what habit is more

alio vel ventriculi ipsius, vel aliarum partium morbo. Others again speak of it under the head of Indigestion, or mention it as a Symptom of Organic Lesion of the Stomach, or some other important Organ; when in reality it is a special functional disease & trace-able in a great majority of cases to definite Causes.

By Dyspepsia is now generally understood all those functional derangements of the Stomach, which are primary in their origin that is not dependant on, or symptomatic of, inflammation or other disease in the economy.

Though Dyspepsia is one of these diseases common to all ages, and most frequently met with in practice, yet it seldom happens that the patient comes under the physician's care until the disease has made considerable progress, and frequently both patient and physician attribute the complaint to disorder of the Liver, for which powerful Mercurials are exhibited, to the greater injury of the patient.

pursued and what more tenaciously defended than that the principal meal should be partaken of in a state of fatigue? the invalid merchant, banker, attorney, government clerk, are all impressed with the same belief, that after the sedentary occupations of the day, to walk several miles to their villas, or to fatigue themselves with exercise before their dinners, will sharpen their tardy stomachs and invigorate their feeble organs of digestion, as if bodily fatigue were an antidote to mental exhaustion.

The necessity for mastication and insalivation of the food has been already sufficiently insisted upon, as well as the means to be adopted for the prevention of the loss of muscular tone in the walls of the stomach, and for its restoration to its natural healthy tone; the same attention to the quantity and quality of the food is necessary, coupled with a due amount of exercise to strengthen

and improve the muscular system generally. Dr Wilson Philip has suggested, that in cases of loss of nervous energy in the coats of the stomach or rather in the nerves supplying the muscular coat that Galvanism may be of service - in fact he mentions several cases in which he shews it was beneficial and concludes his remarks in the following words " We have reason to believe from experiments, that Galvanism has no other power over the muscular system, than that of stimulus, we are therefore to expect little more advantage from it in diseases depending chiefly on faults of the sanguiferous system, than from other Stimuli - but I cannot help regarding it as almost ascertained, that in those diseases in which the original cause of derangement is in the nervous system properly so called, where the sensorial functions are entire, and the vessels healthy, and the power of secretion, which seems immediately to depend on

the nervous system, is alone in fault  
Galvanism will often prove a valuable  
means of relief -

The quantity and quality of the Gastric  
Fluids must also be attended; <sup>to</sup> and it is  
in cases of Dyspepsia dependant upon  
diminished or excessive quantity of this  
secretion that drugs are of most service.

Perhaps the first medicine deserving of  
notice is pepsine; for the introduction of which  
into practice we are chiefly indebted to  
M. Coissart and Dr Ballard. It is pre-  
pared by treating the mucous membrane  
of the Rennet bag - the fourth stomach  
of the Ruminants - with distilled water;  
precipitating the pepsine by Acetate of Lead  
and decomposing this precipitate by Sulph-  
uretted Hydrogen. The solution of nearly  
pure pepsine thus obtained is evaporated  
to the consistence of a Syrup, and then  
mixed with Starch in such proportion that  
fifteen grains of the mixture shall be  
capable of digesting (out of the Stomach)  
one drachm of dried fibrine. It is spe-  
cially indicated when difficulty is found

in the digestion of animal food, and should be given in doses of fifteen grains with the two chief meals of the day. When pepsine fails, or when great atony prevails the one twentyfourth of a grain of Strychnia may be employed in the same way.

Other agents have been used for the increase of the Gastric secretions as the Nitro-muratic acid, Rhubarb, Specacuan and Ginger - The following is a very common form of prescribing the Acid for this affection;

R

Acidi Nitrici diluti	—	ʒj
acid. Hydrochl. dil.	—	ʒjʒ
Inf. Gentianae Comp.	—	ʒvj
		Misce

Sumat ʒj ter die e cyatho vinaris aequal.  
If we wish to restrain undue secretion we resort to small doses of Sulphuric Acid - Bismuth - Conium - Belladonna Opium or Hydrocyanic Acid; if to relieve pain and vomiting, we may use Ice, Morphia, and Carbonic Acid by means of effervescent draughts; while

if there be an excessive secretion of Acid we order Antacids and alkalis. After the contents of the Stomach have passed into the Intestines or should they have been rejected and pain continue a very useful mixture may be made of,

Rj  
Sodae Bicarbonatis gr  $\text{xx}$   
Liquoris Morphiae Hydrochloratis M  $\text{xx}$   
Acidi Hydrocyanici diluti M  $\text{v}$   
Misturae Camphorae  $\text{ʒj}$   
Misce.

Fiat haustus statim Sumendus.

The injudicious use and abuse of Alkaline remedies, in acidity of the Stomach, is often a source of great mischief. Alkalis will not prevent future acidity, on the contrary when taken at improper times the effect of alkalis is to cause and absolute increase of acid. Thus when a large quantity of alkali is taken into an empty Stomach, the immediate effect is that the Stomach in endeavouring to resume its natural condition throws out an

additional quantity of Acid to neutralize the redundant alkali. When alkaline remedies are injudiciously persisted in, the result is that the diseased functions of the Stomach producing acidity will be augmented rather than improved. The beneficial effects of alkaline remedies are confined to the neutralization of acids already formed and thus preventing the secondary effects on the system. As mere Antacids the alkaline Carbonates are in general preferable to pure alkalis.

In cases requiring a laxative effect, the Carbonate of Magnesia, being agreeable to the taste is frequently chewed by persons troubled with Acidity of the primæ viæ. The Bicarbonate of Soda as being more acceptable to the Stomach is preferred in cases where the laxative effect is not required. But in most cases the following combination of an Antacid and Purgative will be found advantageous.

R

Decoct. Aloes Co ʒiv

Infusi Sennae — f ʒjʒ

Ammoniae Sesquicarb. ʒʒ

Tinct Sennae

Tinct Rhei co aa f ʒij

Fiat Mistura. Two tablespoonfuls to be taken when required.

Tonics must be used with caution, for if largely exhibited and persevered in there is danger of wearing out the excitability of the Stomach, and thus indirectly increasing the debility they were given to relieve.

The best Tonics are the pure bitters, Quassia, Gentian, and Colombo - Chamomile has been given in mild cases and Serpentaria in cases of unusual debility. The officinal Infusions of these medicines may be given in doses of a wine glassful two or three times daily. Chalybeate mineral waters containing Carbonate of Iron dissolved by means of Carbonic Acid are sometimes very useful. The following prescription may be had recourse to, when a laxative is desired to be administered with a Tonic. R. Colomb contus., Zingiber contus. aa ʒʒss. Sennae ʒij - Aqua bullient Oj - Fiat infusum - a wine glassful twice or three times

times daily before meals.

In conclusion let all the remote causes and all the symptoms be duly considered, both singly and in combination; the age, sex and constitution of the patient and let a cautious and candid inference be then drawn, and then let the principles of practice be guided by the same prudential mode, and be it remembered that in pure idiopathic Dyspepsia such as I have described "the Stomach is only deranged in function not in structure;" and that by appropriate diet, regimen, exercise, Tonic and aperient medicines the complaint may be safely and often is expeditiously cured.

Dyspepsia was well known to the older authors. Celsus and Aretaeus have given some excellent observations on this disease. The former says it was not frequent in his time, Aretaeus describes it as "Vitium Stomachi", and Celsus calls it "Resolutio Stomachi", and he seems to have been the first who described it accurately.

Though this disease is common to both sexes and to all any period of life, yet it is most frequently met with between the ages of twenty and forty - It is seldom dangerous & we often meet with persons labouring under it who are corpulent & retain their appetite and colour.

## Causes

The causes of Dyspepsia are very numerous, and the consideration of the united circumstances necessary for healthy digestion, and their comparison with the condition of each patient, will render the causes of Dyspepsia in the individual cases apparent.

The conditions necessary for healthy digestion are as follows;

- 1<sup>st</sup> A proper quantity and quality of food.
- 2<sup>nd</sup> Sufficient mastication & insalivation.
- 3<sup>rd</sup> Contractility in the muscular coat of the stomach.
- 4<sup>th</sup> A proper quantity and quality of the Gastric fluids.

Dyspepsia may be produced by any cause which occasions derangement of any one of these functions or conditions, and hence why so many different circumstances seem to produce similar symptoms, and why so many different remedies seem effectual. As to the first condition all authors are agreed that excess whether in quantity or quality of food is one of the most prolific sources of Dyspepsia - Under this head both solids and

fluids are included. When the solid  
ingesta are in too large quantity the Gastric  
Secretions cannot neutralize and reduce  
them to the proper state of chyme, and  
when the fluids are added, the undue  
distension is a common cause of atony,  
and even temporary paralysis of the stomach.  
Among the fluids none are more injurious than  
ardent spirits, in large quantities. The  
excessive use of alcoholic liquors, opium,  
Strong Coffee, and Tea produces Dyspepsia  
by calling the Stomach into excessive  
action, and thus occasioning secondary  
depression and ultimate loss of power,  
by the exhaustion of excitability; just as  
indigestible food does. Some persons, whose  
occupations necessitate long fasting, sit  
down to a late dinner with body and mind  
weak, languid, and exhausted, <sup>and</sup> are too  
often tempted to increase the evil of making  
a hearty meal, by having recourse to  
the exhilarating & stimulating virtues  
of wine or other heating liquors, the  
combined powers of which render the  
body inactive dull and sleepy, digestion

is impaired, and perspiration and all the necessary secretions, and excretions are impeded. Then again the effects of feeding below the healthy standard are also obvious in the diseases of the poor, and ill fed classes in many parts of England, and Ireland, and these are still more striking in those districts where the food is chiefly or entirely vegetable, and therefore less nutritious.

The sedatives as Tobacco, large cold drinks, large draughts of lukewarm water, and the depressing emotions, as fear, grief, and anxiety may all be ranked among the causes of Dyspepsia. In treating of the influence of Tobacco on Saccharine assimilation, and secretion Dr Prout says "although confessedly one of the most virulent poisons in nature yet such is the fascinating influence of this noxious weed, that mankind resort to it in every mode they can devise to ensure its stupefying & pernicious agency. Tobacco disorders the assimilating functions in general, but particularly I believe the assimilation

of the saccharine principle. I have never been able to trace the development of Oxalic to the use of Tobacco, but that some analogous and equally poisonous principle, (probably of an acid nature) is generated in some persons by its abuse is evident from their cachectic look and from the dark and often greenish yellow tint of their blood. The severe and peculiar symptoms sometimes produced by snuff taking, are well known and I have more than once seen these cases terminate fatally with malignant disease of the Stomach and Liver - But it happens with Tobacco, as with deleterious articles of diet, the strong and healthy suffer comparatively little, while the weak and predisposed to disease fall victims to its poisonous operation.<sup>3</sup>

The large quantity of food which is unnecessarily consumed, under the present fashionable custom of taking meat at Breakfast, Luncheon, and Dinner, must undoubtedly injure oppress and overload the powers of Digestion especially when

we take into consideration the general omission of exercise.

Secondly in order that digestion may be perfect and easy it is requisite, that the food be in a state of minute division and mixed with saliva, before introduction to the Stomach. This object is attained by mastication; ~~but~~ and Dyspepsia is almost the invariable consequence of the imperfect performance of the functions of mastication and insalivation.

The frequency of the occurrence of this disease among artisans &c may often be attributed to the fact of their swallowing their food half masticated, being compelled to hurry from their meals ~~from~~<sup>to</sup> their work. A weak and dyspeptic Stomach acts slowly, or not at all on unmasticated and tough masses of food. The delayed morsels undergo spontaneous changes, prompted by the mere warmth and moisture of the Stomach: gases are extricated; acids are formed; perhaps the half digested mass is at length expelled by vomiting; or it passes undissolved into the duodenum