

The temperature of food

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The temperature of Food.

Is the matter of no importance that nothing has been written on this subject, or has it escaped the consideration of physiologists. We even drink and eat ice-creams are taken with the knowledge that they ought not to be, ~~but~~ and there seems ~~to be~~ an unwritten physiological ^{understanding} ~~law~~ as regards low temperatures. When we come to high temperatures the only law seems to be the toleration of the mucous membrane of the mouth, esophagus & stomach. The stomach can stand as regards high temperature what the esophagus cannot & the esophagus what the mouth cannot. It is doubtful whether ~~there are any temperature~~ ^{the} nerve of the stomach ~~which bears to it with the~~ ^{can appreciate} ~~any~~ ^{between 70°} ~~has temperature~~ ^{freezing} point and ~~100°~~ ^{140°}. Such being the case it may be argued that the temperature of the food as regards the stomach is of no consequence ^{the power is not given up of} ~~since it is~~ ^{the} perceiving temperature of food. ~~But~~ ^{however} the mouth however is sensitive to heat & cold & rather an acute degree & yet we can drink & eat food varying between 32° F. & 140° F.

Take the temperature of a cup of
tea ^{it can be offered with - from at 160°; sipped from the cup at 130°;} at 140°F. it is ~~warm~~ ^{bordering on} ~~bordering on~~
hot but drinkable. ^{from the cup is usually felt,} ~~not even a few~~
~~degrees higher it can be swallowed;~~
At 130°F. it is ^{pleasantly} ~~plea~~, warm; at 120°F.
it is scarcely warm enough; at 110° it
is too cold to drink to be pleasant.

The soup is sent away from the table
as ^{being too cold} ~~being too cold~~ ~~too cold~~ at 108°F.
The potatoes are 'cold' at 106°.

Vegetable marrow at 114° is just
cold enough. Eggs are 'cold' at 106°
~~as are~~. A piece of beef steak ~~at 120°~~
is usually eaten at 120°; ~~at~~ 100° one
is told "the meat is cold Sir".

~~Many~~ ~~many~~ examples could be
multiplied if such were wanted
but from what has been stated
it will be seen that it is true
our attention was drawn from a
physiological & dental point of view
to the temperature of food. Is there
any guide to regulate our belief
that we eat food too hot or too cold?

The infant at the breast gets its
food at ^a ~~the~~ temperature being
98°-99°F. The infant brought up
by the bottle is supposed to have its
milk at the same temperature. The
temperature is usually judged by the
nurse tasting it & finding it satis-
factory hands it to the child; and we have
just seen that the ~~old~~ nurse's ~~usually~~ ~~usually~~

fluid at the temp. of $110^{\circ}7$ is unpleasantly
cold. So is all probably the
temperature of the 'little' is ~~now~~ raised
to say even 113° & then join to the door.
It is take fluids 17° & generally is all
probably 20° higher than it would
have had at the breast. Is this of no
consequence is thing is true; it seems not
to be, from the way we disregard the
subject but are we right in so doing
is a different question. The skin
cannot stand water higher than
 110° ; the nose does not resist water
over 105° ; the ear ~~100^{\circ}~~. The vagina &
the patient complains if the water
used for syringing the ear is over 100° .
under 100° the range of what it
considers pleasant is very limited.
A hot water ^{syringe} for the vagina &
causes ^{loud} ~~much~~ ~~exclamation~~ exclamation
if the temperature is 112° & an enema
for the rectum is unpleasant if over
 105° . Now then comes it about that
the mucous membrane of the ^{gastro-intestinal} ~~rectum~~
~~throat & stomach~~ which was
originally intended to be accustomed
to consider fluids at 98° as the highest
degree pleasant not only can tolerate
food at a higher temperature but
regard fluids at that temperature
unpleasant. There is no other example
of such ^{a range of} toleration in the body; the child
enjoys ^{for its bath} water at the same temperature as

Does the adult. or it is only by an effort
of the will that the adult does not call
** and should be get into ^{water} temperature
of 106°. An enzyme for a child is used at
the same temperature as for the adult
in fact the ~~child~~ ^{infant} and adult are alike
in all things as to heat & cold except
in the way along the one track namely from
the mouth to the stomach.

The question is it intended to be so or is it
a matter of education. Nature's food
are cool & cold. The dog is upheld to ~~the~~
Northern nations as an example of
people having good teeth because he sub-
sists on "Food Cold" ^{that} ~~that~~ there is all the
explanation ~~and~~ is not credited but
that it is a fact ~~rather~~ is possible. What

can be the effect vigorous or otherwise
of drinking hot fluid. In the first
place they convey warmth to the body
directly, but so cover the mother milk
to the child, and the difference in temperature
between the two is probably as much
as 35°F. Can any other ~~for~~ ^{then} if
~~for~~ ^{the} effect of a salutary nature
result. The temperature of the fluid on
when reaching the stomach is most
instance will be between 120 & 130°F.
or say 50° to 50°C. Now many of the
derivatives of albumin are affected
by a much lower temp. say 40°C. Whether
the effect of hot food is for good or evil
to these albuminate is not known.

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Is the matter of no importance that nothing has been written on this subject, or has it escaped the consideration of Physiologists? Ice cold drinks, although pleasant, are known to be deleterious, ice creams are taken with the knowledge that they ought not to be consumed, so that there seems to be an unwritten physiological understanding as regard, food taken at low temperatures. When on the other hand we come to high temperatures, the only law seems to be the toleration of the mucous membrane. The stomach can bear a heat which neither the Oesophagus nor the mouth can tolerate, but the amount of heat tolerated by the mucous membrane of the mouth seems a matter of education. The mouth is sensitive to heat & cold to an acute degree yet ~~some~~ liquids are tolerated at a temperature between 32°F & 140°F . Take the temperature of a cup of tea; it can be sipped with a spoon at 160°F ; sipped from the cup at 150°F ; not but drinkable from the cup as mouthfuls at 140°F . At 130°F . it is pleasantly warm; at 120°F . it is scarcely warm enough, & at 110°F is too cold to drink with pleasure.

Soup is sent away from the table as being
 too cold at 108°F . Potatoes are cold at 106°F .
 Vegetable marrow at 114° is cold. Eggs are
 considered too cold at 107° . A piece of beef
 steak is usually eaten when ~~the~~ ^{its} temperature
 is 120°F . & meat at 105° is sent away as
 unpalatable. Examples could be multiplied
 but for the above statement, it is time
 an attention was drawn to the subject.
 Ice drinks ruin the digestion ^{with it} & the teeth
 in America, & may it not be that hot food
 in colder climates is doing the same with
 us. ^{many} ~~the~~ artificial means of keeping food
 warm are practised today which were not
 known 30 years ago & the new born mouths
 are being educated to stand a higher temperature
 than is consistent with good digestion.
 The infant at the breast gets its food
 at a temperature of 99°F . The infant
 brought up by the bottle is supposed to have
 its milk at the same temperature. The
 temperature is usually judged by the nurse
 tasting the milk & finding it satisfactory
 puts it in the infant's mouth. There may
 be the explanation of ^(the almost universal) decay of the milk

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teeth. The nurse considers the milk
cold if it is below $115^{\circ}F$. but to the infant
it is ~~under~~ ^{none of the} $17^{\circ}F$ higher than nature
intended it to be. Further from a bottle
milk as it is imbibed at the ~~from~~
~~fact~~ at the commencement or end of bottle
must vary many degrees in temperature.
Is this of no consequence is the practical
question? The skin cannot stand water ~~higher~~
at a higher temperature than $110^{\circ}F$, ~~however~~
the mucous membrane of the rectum
tolerates $106^{\circ}F$ only; the patient complains if the
water used for syringing the ear is $106^{\circ}F$ under $100^{\circ}F$.
Cold water rapid double cause, uncom-
fortable if the water is over 108° or an enemata
in the rectum at 105° is pleasantly warm.
How then come it about that the mucous
membrane of the gastro-oral tract which
was originally intended to consider fluid,
at $99^{\circ}F$ as the highest ~~degree~~ ^{temperature}
the pleasant comes to tolerate ^{130°} ~~the~~ with
satisfaction. Baths, enemata, injections, &c.
are used at the same temperature for the
infant & adult; but with the ~~absorbents~~
mouth & stomach exchange takes place &
a very decided one too amounting

in the case of fluids, above 30°F .

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In the Education of the mucous lining intended by nature a warm, natural, food, are cool.

The Negro is upheld to Northern nations as an example of people having good teeth "because ~~they~~ ^{they} eat then food cold."

This is a popular belief & although not quite accurate, it may be a factor in the matter of the decay, & the stability of teeth.

To enter into the details of the chemical action of heat upon the albuminate, met with during digestion is ~~beyond~~ ^{beyond} the perhaps, one way to arrive at the truth; but without chemical investigation enough has been said to direct attention to this all important question & it must be left to the experimental physiologist to settle whether it is advantageous to the digestive process to educate the mucous membrane, at the commencement of the digestive tract to tolerate a degree of heat which is far in excess of any other sensitive surface & which may be highly deleterious to digestion in general & the teeth in particular.



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