

**Two treatises. The first of pulses, the second of urines / By J. Fernelius, [tr. by] Abdiah Cole and Nich. Culpeper.**

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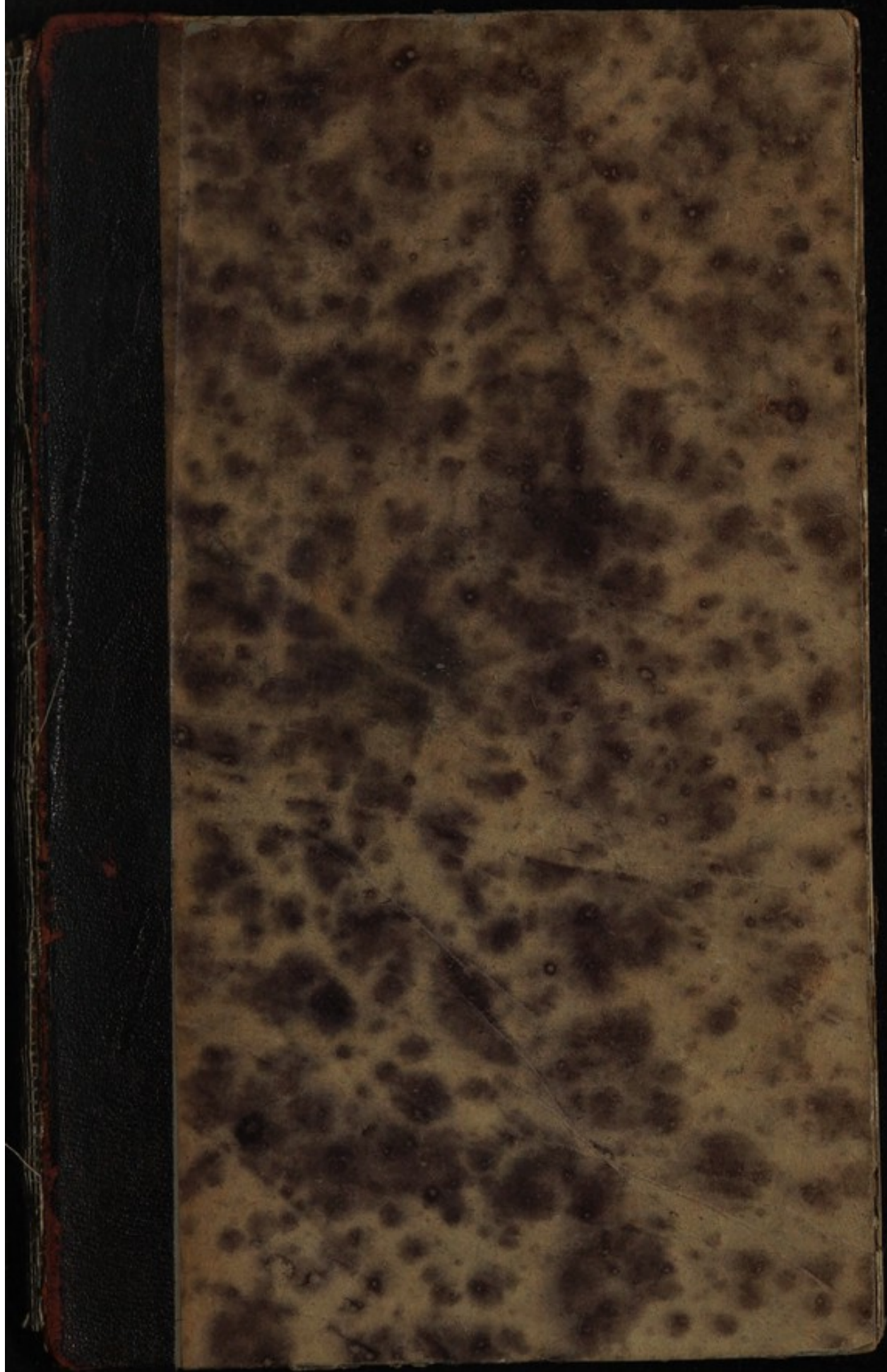
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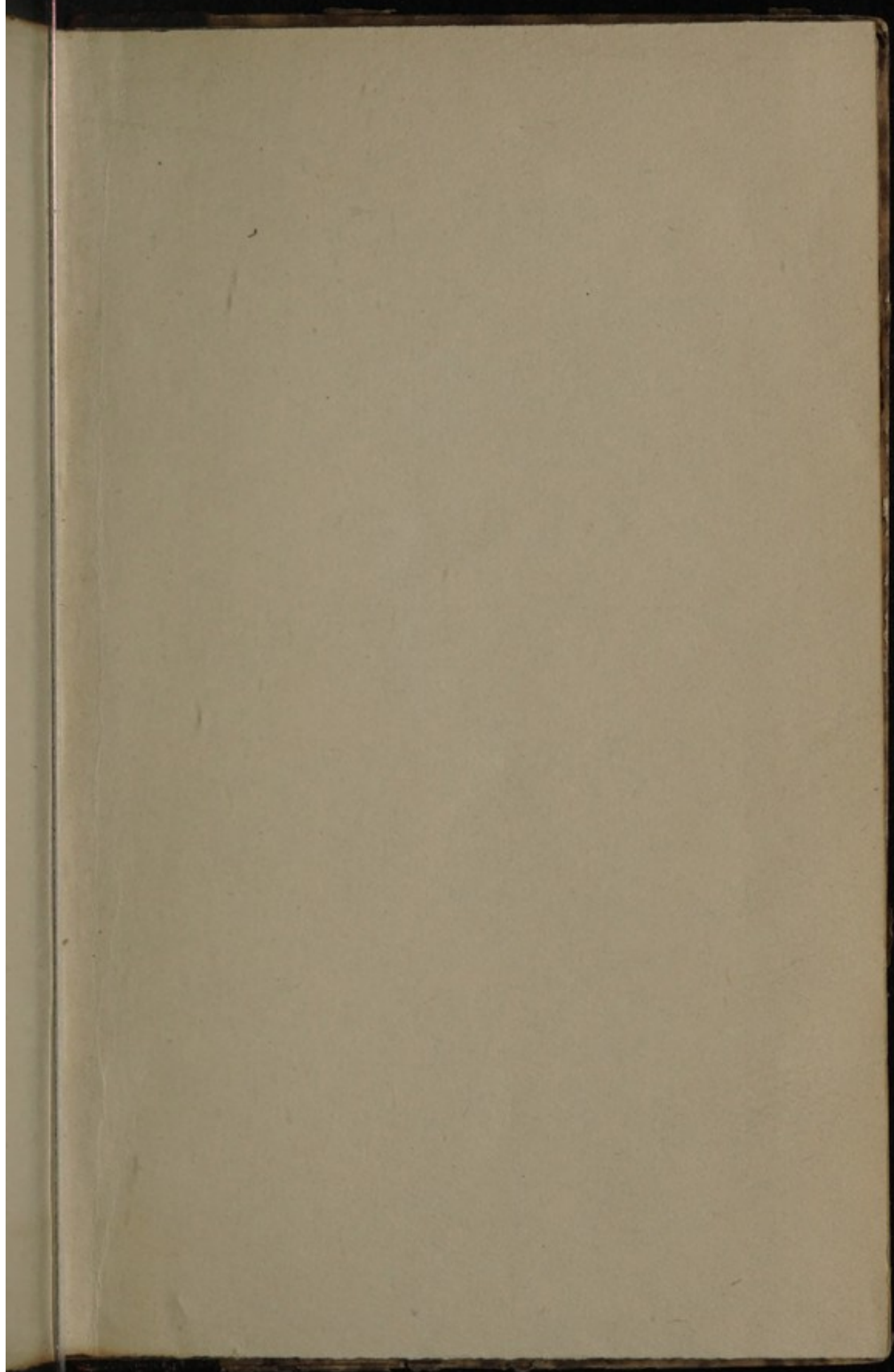




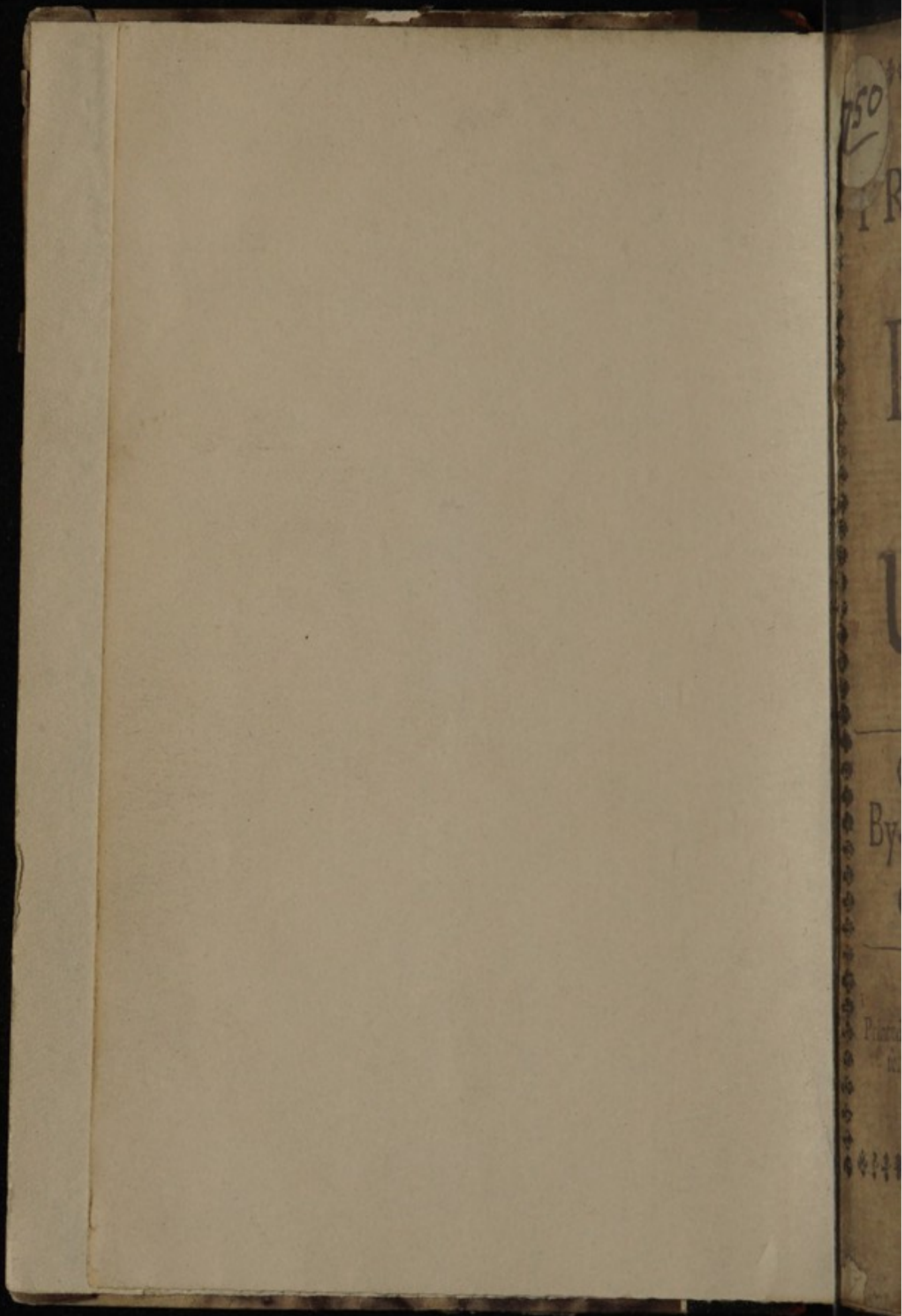
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FERNEL, J.  
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TWO  
TREATISES

The first of  
Pulses,  
The second of  
Urines.

By { John Fernelius,  
Abdiab Cole, And  
Nich. Culpeper.

LONDON:  
Printed by Peter Cole, Printer and Book-  
seller, at the Sign of the Printing-  
Press in Cornhill, near the  
Royal Exchange. 1662.



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## To the Reader.

**R**Eader, *It is not denied by any true Physitian, That by Inspection into Urin, and by feeling of the Pulse, many Diseases may be found out: And they have been so long used, that the Vulgar people have made the Harlot Urine a Goddess equal to Cloacina, and believe that nothing can be known but by her. Also many illiterate Mountebanks have from the Peoples simplicities, taken advantage to read unto them variety of Piß-pot Lectures to delude them: by gathering from their own Answers, to such questions as they propound, strange Piß-prophecies; whereby they seem to declare not only ordinary Diseases, but Deformities, and things no way discoverable*



## To the Reader.

rable by Urine; Nay sometimes they attempt to speak from that Text, of humane Events, things past, and to come, to get admiration from the Vulgar; By the Casting (as they call it) of an Urine, others slight it as impertinent. But it is no good Logick to gather from the abuse of a thing, a Consequence for the not using of it, Let not the excellent Rules of Judging by Pulse and Urine be laid aside, because they have been abused. To put this Art into its primitive Lustre, I have here laid down the most exact Rules that may be. The true Knowledg of a Disease is accounted half a Cure, I therefore advise all sober Physitians and discreet Patients to use all means to obtain it, without which all wil be but lost labour. Something may be discovered by Urine, more by Pulse, most by the Patients candid Relation of external Causes, Accidents, and Circumstances, let all be laid forth plainly if thou wilt take the Advice of

Abdiah Cole.





Books Printed by Peter Cole,  
Printer and Book-seller of  
London, at the Sign of the  
Printing-press, near the  
Royal Exchange.

Several Physick

*Books of Nich. Culpeper  
Physitian and Astrol-  
ger; and Abdiah Cole  
Doctor of Physick, and  
of the Liberal Arts, com-  
monly called, The Phy-  
sitians Library, contain-  
ing all the Works in  
English of Riverius, Sen-  
nertus, Platerus, Ferne-  
lius, Riolanus, Bartho-  
linus. Viz.*

1. A GOLDEN Pra-  
ctice of Physick: After a  
new easie and plain Me-  
thod of Knowing, Fore-  
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sion, or sins of Infirmary o-  
pened.

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feed on Christ.

4. Of Self-denial.

5. The Saints Duty to  
keep their Hearts, &c.

6 The Mystery of spirit-  
ual Life.

Dr. Prestons Saints sub-  
mission, and Satans Over-  
throw.

A Treatise





A  
**TREATISE**  
OF  
**Pulses and Urins.**

CHAP. I.

*What a Pulse is, and how many  
sorts of Pulses there are.*



He Pulse and Urin declare  
diseases what they are, for  
the Pulse shews the Con-  
stitution of the Heart, and  
Arteries, and the Urine de-  
clares the Constitution of  
the Liver, and the veins, by the admi-  
nistration of which the whol body is  
governed. The Pulse doth chiefly shew  
D the



the strength of the whole body, and more plainly that of the Heart. The Urin shews manifestly the state of the Liver and humors, and the diseases from thence, and declares also but not so plainly the strength of the Body. Therefore we shall speak of these as certain Signes, and as a much as Art requireth.

*What a Pulse is.* | A Pulse is the motion of the Heart, and Arteries, that cools, the natural heat by contraction and dilatation; called Systole, and Diastole.

Diastole or Dilatation is that by which the Arterie opens its self to take in Ayr, and thin Blood, to temper the naturall Heat, and nourish the Spirits. Systole or contraction is that by which the Arterie closeth to expel the Soot contracted upon the Spirits by adustion. Between these two motions being contrary, there is a twofold Rest, the one, at the end of the Diastole, and the other at the end of the Systole. Now the differences of Pulses arise from the Diastole, or from the Rest; or from the Order: five kinds of Pulses come from the Diastole, as from the Quantity, Vehemency



mency, Time, Quality of the Artery, and spreading of the Artery: the Quantity makes a long, a broad, or a high Pulse, as the Artery opens. These all together make a great Pulse, when the Artery opens every way. The contrary to these, are a short, narrow, and low Pulse: and when they all are together, it is called a little Pulse. That Pulse is called moderate which is between these extreams. Therefore the Pulses from quantity are long, short, or moderate; broad, narrow, or moderate; high, low and moderate. From the vehemency of Dilatation, comes a Pulse called strong, or vehement, when it beats hard upon the finger: and that which beats weakly is called a faint Pulse, and that between both, is called moderate, from the time, that Pulse is called swift, which in a short space opens the Artery, that is called slow which is long, and that moderate, which is between both.

From the quality of the Artery, the Pulse is called soft, when the Coat of the Artery is tender and loose, it is called hard, when it is hard, and moderate when it is indifferent. From the spreading, or perfusion of the Artery a Pulse is called full,



when in the Diastole or Dilatation the Artery is not only large and swollen, but full of humor. The Pulse is called *empty*, when you feel it swollen with wind and not with blood, as you may perceive by your finger when it is not firm and solid: The mean between these is called a moderate Pulse. The sixth kind of Pulse is taken from the *rest* or *quiet* between the beating, hence a Pulse is called *frequent*, when it often, and with short time of rest stretcheth the Artery, and beats upon your finger: that Pulse is called *rare* which with longer distance. The seventh difference is from the *order*, when it is allwaies alike, it is called *equal* or *even*. This is of two sorts, as when it is in all, or many stroaks equal and alike every way, when in every stroak there is a likeness and equality in magnitude or greatness, and in swiftness and the like differences, or it is called *equal* or *even*, when in one stroak, the beginning, end, and all the parts of the Artery proceed equally. A Pulse is called *unequall* in *multitude*, when many stroaks compared together are unequal, and unlike, either in respect of greatness or swiftness, or vehemency, or the like.

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Pulse



And that which is so in all those respects, is called *absolutely unæqual*. An unæqual or uneven Pulse is of two sorts, it is either *æqually uneven* or *unæqually uneven*. That Pulse is *æqually uneven*, when it hath an even and alike motion in an inæquality, as when the second stroak is somewhat less then the first, and the third then the second, and the fourth then the third, and so forward. This is called in Greek the *Moustayle*, and in Latine a Pulse that grows smaller and smaller; If this decrease till it quite stand stil, it is called *Myurus*, or *Moustayle deficient*, if after it arise as great as at first, or less it is called *Myurus reciprocal*. A Pulse *unæqually uneven*, is that which hath no likeness or similitude, inæquality, and if this cease, it is properly called an *uneven and deficient* Pulse: And if after two or three or more stroaks, the Artery begin to beat again, it is called a *deficient reciprocal* Pulse. An *intermitting* uneven Pulse is like to this, when there is very long rest. To this *intermitting* Pulse is opposed the *intercurrent* Pulse, as when you feel a stroak thrust in between the two stroaks you expected. Moreover a Pulse *uneven* in one *stroak* is twofold, for



it is either in one part of the Artery or in divers. A Pulse that is *uneven* in the same part of the Artery is threefold, for though the motion of the Artery be constant and continual, yet is it not sometimes alike, at the beginning, middle, or end; sometimes it rests, and sometimes strikes twice for once. the motion is uneven at the beginning and end, sometimes in respect of vehemency, or magnitude, or swiftnes, or the like. The Pulse called *intercident* is when the distention wants continuity, and is cut of by a rest. and though it strike twice, it is not two but one pulse or stroak, and if after the rest, the motion following be quicker and stronger, then the motion that went before the rest, then it is called a *caprizant* pulse. The Pulse called *Dicrotus* or recurrent which strikes twice, is when after all distention is past, it beats again like the hammer that leaps from the anvell after the stroak: this is different from the *intercident*, sometimes the stroak returns not once only, but twice or thrice. A pulse is called *uneven* in *divers parts* when it doth beat alike upon many fingers laid thereon, as when four fingers are laid upon the Artery it beats



beats onely upon the second and fourth, or first and third finger, and not upon the rest. A Pulse is called *uneven* in magnitude, vehemency, hardness, or fulness when all fingers touch it alike, and yet magnitude or greatness, vehemency or strength, hardness or fulness is not alike to all if there be hardness withall, this Pulse is called *serratus* or sawed pulse. there is also an uneven pulse, in respect of the situation of the parts of the Artery when one part of it runs to the right hand, another to the left, one upwards, another downwards, if this be very manifest, and the diastole or dilatation of the Artery be great it, is called *Vibratus pulsus* or a darting pulse, in which there is an often unequal shaking as in darts which are thrown with a quick force, if it be less manifest, and the Artery appear stretched and drawn aside, on both sides, the Pulse is called convulsive. The Pulse is called *undosus* or water-like, when the Artery strikes the first finger more fully and strongly, and the second more weakly and gently, and the third finger fuller and stronger, and strikes the fourth finger more gently, this is called *uneve* like the billows of



*water.* A *vermiculant Pulse* is that which is like the creeping of a *worme*, it is somewhat like the watery pulse last mentioned, from which it differs not in unevenness, but in strength and greatness. The next is called *formicant*, or *ant-like Pulse*, which is very smal, very weak, most quick, and uneven, differing as much from the worm-like Pulse, as that doth from the waterlike. Every *uneven Pulse* is of two sorts, *ordinate*, and *inordinate*, an *ordinate uneven pulse* is when the order of inæquality is kept, as when there are four uneven stroaks, and every four stroaks have the like proportion of inæquality. An *inordinate uneven pulse*, is when there is no similitude in the inequality, or order in the Circuite of motion.

## C H A P. II.

*How to feele and know the Pulse.*

**L**Et the hand that feels the Pulse, be temperate, soft, not callous, but of quick sence | What the Physitian must observe in touching the Artery with the ends of his fingers.  
 let three or four fingers be laid upon the  
 Arter y



Artery of the wrist, let not the Patients hand be lifted up, nor let down, nor stretched out, nor bound, nor leaned upon, nor the palm of the hand upward, nor downward, but let it be in a natural position, held even with the little finger downward. If the Pulse be obscure in the wrist right against the thumb, you must seek for it in another place, or in the other wrist, for one side may want a pulse from obstruction, or it may alter by reason of a wound or Contusion. A *vehement* strong pulse is not known, except you press the Artery with your fingers close, this differs from a great and from a full pulse because it seems to resist the touch by its strength: Nevertheless you must not press it so, that the force of your hand may overcome the strength of the Artery. A *faint* pulse is to be discerned best, when the hand hangs down with the palme upwards, and it must be touched gently: for if it be pressed hard, although a faint Pulse may be also great as in a Lethargy, it will appear very little and not be felt. The Systole is somewhat perceived in a vehement, great, and hard Pulse; but never in a faint: In a most great vehement



ment and hard pulse, it is plainly perceived when the Artery is strongly pressed. The external rest between the strokes, is perceived by a gentle touch, the internal by a pressing of the fingers close. He that will be perfect in the knowledg of these, let him first exercise himself in the Systole or Contraction, and internal rest of the heart, for that beats most violently, for they are manifest by touching of the breast, and by that he may learn them in the Arteries, other differences of Pulses must be observed by moderate touching.

## C H A P. III.

*The General Causes of Pulses:*

**T**here are three causes of Pulses, the efficient, the impelling, and the instrumental; The chief and efficient cause of Pulses, is the moving faculty of the heart. The instruments are the Arteries that follow the force of the faculty, and obey it: The cause that stirs up the faculty is use and necessity of motion.

Whence comes the cause  
of the necessity of Pulsation,  
and how many causes  
there are of it.

This is the chief  
cause from whence  
comes the beginning  
of



of motion. Now all necessity comes from a præternatural affection, which being offensive and troublesome to the heart, it strives to shake off: this affection is threefold, either it is want of heat or Spirit which the heart by beating labours to get, or a cold or hot distemper either simple or from a Fever, or Flegmon which it desireth to cool, or it is some strange Substance which it laboureth to expell, as when Smoak, or a Vapour or humor smites the heart, with some vitious quality or presseth it with its plenty. These are the internal causes: The outward are all immoderate motions of the body, and perturbations of mind, as Anger, Shamefastness, Fear, and Sorrow. Therefore the faculty of the heart being stirred up by a necessity from these causes, takes in a new air from without by Diaστοle, which may cool the heart, and nourish the vital Spirits. By the Systole the adust Smoak of the Spirits and whatsoever is præternatural to the heart and arteries is purged. Therefore use and necessity forceth the faculty of the heart to beat, this faculty stir'd up moves the instruments and Arteries, and these yeeld to its force, now there



there will be alwaies beating from the condition of the necessity if there be strength in the faculty, and if the Arteries wil comply, and these two, namely vital strength, and the constitution of the Arteries do oftentimes hide the significations of necessity: for large arteries usuaily cause a great Pulse, which will appear if they lye not very deep. But small and narrow Arteries such as are in fat folks, cannot produce a great Pulse, also if the vitall strength be active, the pulse is naturally great and strong, if weak, it is faint and small, from these causes some

*How to know  
Pulses.*

in very old age have strong and great Pulses, and some in the prime of their age have little or none. The cause of vital strength, is not easily perceived. Therefore there is one observation of great consequence in all, which will give a large knowledg of the Pulse and nature. when there is a mediocrity from the concurrence or joyning of all causes the the Pulse is moderate, and when the mediocrity is wanting, the Pulse is changed, and becomes immoderate.



## C H A P. IV.

*The diversity of natural Pulses,  
and from what causes they are  
changed, without diseases by  
health.*

*To know the Pulse,  
and Temper certainly  
you must know the  
moderate Pulse, and  
that must be a rule  
for the rest.*

**F**irst then let us labor  
to know a moderate  
Pulse, that it may be a  
law and rule to the rest.  
That is called moderate  
which is neither great  
nor little, swift nor slow, often nor sel-  
dome, strong nor faint, hard nor soft,  
nor unequal, nor any other way exceed-  
eth, from this all the rest by comparison  
are called great or smal, quick or slow,  
or the like. This is onely to be found in  
the best constitutions that are most tem-  
perate, but in intemperate natures the  
pulse is different from this, even while  
they are sound. For they who are of hot  
nature, have a quick, often, and great  
Pulse; for there is in these a great necessi-  
ty of purging out the smoak, and they  
have



have strength enough to doe. The contrary is in them of a cold nature; lean and slender people have a great Pulse, but seldome and strong, because the Artery is easily distended without any hindrance: Hence it is that the pulse is far greater in men then women, but somewhat slower and seldomer. In Infants

*Things that change  
the Pulse, as sex, age,  
time of the year.*

and children the Pulse is most quick and often, because the abundance of heat desires to be cooled by the Diastole, and the plenty of smock or foot in the spirits may be purged by the Systole. The Pulse is slower and seldomer in old folk. The young persons Pulse is greatest because the heat is sharp, and the Artery large. The old is least, the childrens is of a middle sort, for the necessity is great, but the Artery is streight. The Pulse of a young man is most vehement, because the faculty is most strong, of an old man it is most faint, of a boy, it is moderate: From these we may conjecture what natural Pulse every sick body ought to have. This may be changed even in time of health by the Ayre and time of the yeer, by exercise of body  
and



and perturbation of mind. In the middle of the Spring the Pulse is greatest and strongest, because in that excellent temper, the faculty is most strong, and it is moderate in respect of swiftness, because in a temperate condition the pulse is moderate, but in the middle of Autumn, and Summer, the Pulse is swift and often, for necessity and use increase, but it is then small and weak, because the faculty is faint. In the winter because the use is not so much, the pulse is slower and seldomer, and less then in Summer; but stronger.

Of Countries, Climates, | *The Countrey.*  
they which are vehement hot  
are like midsummer, the cold like winter, the temperate like the Spring.

Moderate Exercise maketh | *Motion.*  
Pulses strong, by stirring up the  
faculty, but they are great, swift, and often: because the Use increaseth by the increase of heat. In Idleness the contrary appeareth. Immoderate exercise above the strength, makes small and faint pulses, but quick, and often by use, and when the strength decays they are slow, and seldom; the same is from hot Baths, and cold; full feeding, and  
much



much wine makes great Pulses, strong, quick, and often, but the change is sooner from wine then meat. If wine be

*Wine.*

taken immoderately, it makes the Pulse disorderly, and uneven. In Sleep the Pulse is

*Sleep.*

little, faint, slow, and seldom, presently after it turnes great, quick, and often, and darting,

*Passions of  
the Mind.*

but soon returns to a mediocrity. Angry people have a great, high, vehement, swift, and often Pulse, sorrowfull

people have a little, faint, slow, and seldom Pulse. The Pulse of a fearfull man is vehement, quick, darting, inordinate, and uneven. The dayly affections of the body, do so change the Pulse, that except you observe them, it cannot rightly be understood, or known how it differs from a natural pulse, when there is a disease: Therefore observe the natural pulse, but not presently after exercise, Baths, great feeding, Wine drinking, or other hot causes, nor presently after Anger, or Fear, or other causes that disturb the Heart, and Spirits; you must determine nothing by the Pulse, till the force of external causes is past,



past, and all the perturbation of the body or mind ceased. All these Pulses are not moderate, but bounded in the limits of Nature. Now we shall speak of pulses contrary to Nature, and shew what they signifie in Diseases.

## CHAP. V.

*The Causes of preternatural Pulses.*

**W**Hile the Heart is according to Nature, it defendeth the natural heat and Spirits, by a moderate beating: but when preternaturally affected, it labors to shake off what is offensive, and to restore what is wanting. I shall first shew what Diastole signifieth, and then what a Systole declares in a sick Heart. When the Heart is provoked by use or necessity at the first, the beating is often, whether the faculty be strong or weak: the often Pulse is first of all, because it is easiest: if this often beating do not satisfie necessity, then comes swiftness, and if those two are not sufficient, greatness of Pulse wil be added, provided the faculty be not weak, for that

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will help with all its strength. If the faculty be strong it causeth a strong and vehement pulse, and a full pulse, if there be plenty of spirits. And we observe that in all Fevers there is a frequent and swift pulse, but not alwaies great, for if the strength faileth it becomes small and weak as well as frequent. Moreover they who are without a Fever, as in a swooning, or they whose strength is oppressed with plenty or impurity of humors, as in Leucophlegmacy the pulse is frequent and swift, (for we must not judg a Fever alwaies by a frequent pulse) but not presently great, but little and faint. Therefore the first change of the pulse is not into magnitude, but into oftinness, and then comes quickness, and after greatness. Galen saith that every pulse when necessity urgeth is at the first great, whether the faculty be strong or weak, and there is never swiftness without greatness. Therefore a frequent and swift pulse shews either heat abounding or want of vital Spirits. A great pulse shews that the faculty is not weak, a vehement pulse shews that it is strong, a little pulse shews

*What is the Cause and judgment of every preternatural Pulse.*

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shews want of natural heat, and great coolness, when this happens, the rarity of the pulse will be first manifest, and as the hurt increaseth, slowness of pulse will come, last of all smallness. In increase of heat it will be just contrary. The difference of pulses as they are long, broad, and high, comes not from the necessity of the thing, and shews not the being of any Disease, but only represents the impediments which are about the Artery: for the Artery is stretched as much as may be, and the greatness of the distraction is sometimes covered, sometimes intercepted with the number, or thickness, or hardness of the adjacent bodies, as of a Membrane, or Skin, fat, or flesh, by which the pulse appears divers, and otherwise than necessity requires. Hence it is that full bodies have short and small: slender bodies, long and great, and square people moderate pulses. A soft Pulse shews a soft Artery, and that the body is full of Flegm, as in a Dropsie, Leucophlegmacy, or Lethargy: either from moist Diet, immoderate Baths, Sleep or Ease. This pulse as the Disease increaseth, and strength decays turns worme-like and Water-like. A hard



pulse if it come neither from faintness of mind, nor fear, nor bashfulness, shews alwaies the hardness of the Artery; and there is not any hard which is not also small, although not presently weak. The Artery grows hard by driness, binding or stretching. Driness comes from immoderate use of Wine, from burning Fevers, from Leanness, Quartans, and Melancholly. Constriction or Binding comes sometimes from cold Air, Baths, or water-drinking; sometimes from bad fruits that breed thick glassie Flegm, stretching of the Artery comes from great Inflammation, or from Scirrhus of the Liver or Spleen. A convulsive pulse is like unto this hard and stretching pulse, which shews that the Nerves have a Convulsion, or that the Belly is immoderately loose, as from taking of Hellebore. A darting Pulse comes from a little and hard pulse; for when there is great need of cooling, and the faculty is strong, when the Artery is hard, there is a quivering from the contention of the strong faculty and the Artery that opposeth it. This shews the same Diseases as a hard pulse doth. Thus you are to judg by the Diastole. Now the Systole is as the Diastole great-

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er or less, stronger or weaker, swifter or slower, softer or harder. The only difference of swiftness and slowness is to be felt, and in those only in whom a Systole may be perceived.

The quickness of the Systole shews a great company of adust excrements which Nature labors to expell by compression of the Arteries. These come from putrified humors which cause Fevers, when their substance or vapor gets into the Heart. Therefore a quick Systole is the sign alwaies of a putrid Fever. This quickness is not only a sign of Fevers from putrid humors in the Veins, but of Diseases in the Liver, Spleen, or the like. The slowness of Systole or contraction is when there is not much putrid and burnt excrement in the body, and when great expurgation is not required. Frequency of the Systole shews that much foul excrements are increased, and therefore the rest outward is very little. The rarity or seldomness of Systole in which the external rest or ceasing is long shews that there are few smoaky excrements.

*The cause of a quick Systole.*



## CHAP. VI.

*The knowledg of Diseases by the Pulse.*

**L**et use come more plainly to the use and exercise of these things. The Differences of Pulses shew both the preternatural Disease, and the place where it is. Diseases preternatural are known by the pulse, either principally, or secondarily. All distempers whether simple, or compounded with humors, are known first and principally by the pulse. Also Plethory, cacochymy simple, & with putrefaction, Phlegmon, Scirrhus, Obstruction, these Diseases are beginning and

*What pulse is proper to every preternatural disease and part.*

containing causes of all the rest. In a simple hot distemper from heat, or a Fever for a day called *Ephemera*: the pulse is often swift and great, and also equal. The same is in a *Hectick* Fever but a little harder. In a simple Plethory which doth not yet oppress the strength, and in a simple Synoch, the pulse is not only often, swift, and great, and also equal, but also turgid



gid or swollen, full and vehement, because that Disease is not in any but strong people. A Distemper from putrefaction of humors, and a putrid Fever also causeth an often, swift, and great pulse, but uneven, not only in many stroaks but in one: Because the Systole is quicker then the Diastole that the filthy smock may be thrown out: also the ceasing is shorter which makes the pulsation ofner. In the beginning of the Fit, the inequality is somewhat manifest, but it is more seen in the increase and vigor. A Phlegmon which is great and in a noble part, because it imparts the heat of its putrefaction to the heart, and the whole body, causeth a feverish pulse: and such as is hard, and sometimes sawing and darting, because the stretching of the part inflamed goes to the Arteries: And this pulse is harder if the Phlegmon be in the nervous parts, or about the Membranes, Veins, and Arteries. A cold distemper causeth a rare, or seldom, slow, and little pulse; a dry causeth a hard, and a moist, a soft pulse. And this is when the distemper is simple. But if this distemper come from the flux of any humor, there is with the other mentioned,



an inequality of pulsation, especially if the humor settle upon a noble part. For

*What kind of  
of pulse declares  
the part affect-  
ed.*

if the Arteries be obstruct-  
ed or compressed with  
plenty of humors, or Na-  
ture be burdened with them  
the pulse is unequal; and  
the more when the humors are thick, sti-  
my and many, than when they are thin  
and few. We know what part of the bo-  
dy is affected by a soft, and also a hard  
pulse called tentative or stretching, that is  
Serrant or Saw-like, and vibrant or qui-  
vering. A soft pulse shews a gentle Disease  
and that the part affected is fleshy with  
Veins and Arteries. A hard pulse shews  
that the part is full of Nerves and Mem-  
branes. Also the parts neer the Heart  
that are joyned to it by great vessels, do  
sooner, and more communicate their  
Disease to the Heart, and they which are  
farther off and joyned to the heart by  
small vessels, do communicate a distem-  
per to it, less and slower. By the mix-  
ture of these you may know secondarily  
what pulse is in every Disease. For when  
the Midriff is inflamed, the pulse is very  
hard, Serrant and Vibrant, and sometimes  
Convulsive, but less in a Pleurisie, and  
less



less then that in an Inflammation or Scirrhus in the Stomach, Bladder, Womb, Guts, Liver, Spleen, or Lungs: In a Peripneumony the pulse is great, weak and and soft, and also unequal, both in one particular motion or beating, and many: and often it is waterish or Wave-like called *Undosus* and *Dicrotus* also, or Recurrent or beating twice at a motion. In a Lethargy the pulse is like this. and in a Catroche more like it, only it is then equal. In an Epilepsie and Apoplexy (when it is great, and the faculty much oppressed) the pulse is faint, little, rare, slow, and unequal, and after turns quick. In a Convulsion it is convulsive, stretching, Vibrant and unequal, but not so great and strong. In a Pallie it is faint, and slow and small, somewhat intermitting and out of order. In Ascites it is small, often, and hard, and stretched, in a Tympany it is long quick, often, and somewhat hard. In Anasarca, Wave-like, or undose, broad and soft. In a Phrensie, it is hard and little, very quick and often, shewing a Syncope, sometimes it is trembling and intermitting with a Convulsion. In a Quinzy it is great, and undose or Wave-like, and somewhat convulsive,



vullive, but when suffocation is at hand it is little, weak, often and unequal. In *Orthopnea* or difficulty of breathing it is unequal, inordinate, often, slow and deficient and at length faint. In a *Pthysis* or ptisick it is smal, faint, and not very quick; In a *Hectick* from Suppuration, it is unequal and inordinate. In time of the matter breaking forth it is slow, broad, rare, and faint. And in other diseases you may know what pulse ought to be, by observation from these.

## CHAP. VII.

### *Observation of Strength by by the Pulse.*

**T**He Pulse chiefly shews the Strength, for the vital faculty is the cheif, and preserver of rest, and that being firme none can dy, therefore from it you may know the life and strength, when death is at hand, the Signes of the vital faculty decaying appear. Sometimes  
long



long before as when the disease is long, and the faculty decays by degrees. Sometimes a little before death, as when the vitall strength by an immoderate and suddain evacuation, or pain, or o-

*The knowledg of strength by the Pulse; is a good Prognostike.*

ther great Symptome is dissipated and destroyed: or when it is choaked by an Imposthume broken, or a sudden flux of hu-

mors, or great obstruction. Therefore if the Pulse be the discoverer of the heart, and life it is also the declarer of all the faculties and strength. A robust and

*A strong Pulse what it signifies.*

vehement Pulse in sound men signifies long life, in sick men it promi-  
feth recovery. A faint Pulse

doth the contrary. When the Pulse is so vehement, that it opposeth, and hindereth the touch, it shews the strength of the faculty more or less, for it shews that the humors are good in quantity and quality, and well concocted, or that nature is in concoction of some crude humors (this is in diseases recoverable) especially if it come neither from Anger, nor Exercise, nor much Wine and Meat immoderately taken. A faint Pulse that

is



*A faint  
Pulse.*

is lost by touching, shews the weaknes of the faculty, and so fainting, or swoounding, or that the strength is impaired by a long disease, or otherwise destroyed, as by fainting, watching, pain, or passion, or by great evacuation, or strength of a disease quite lost. A robust and vehement pulse is commonly great, but not necessarily, even as a strong young man doth not allwaies go strongly and fast. every faint Pulse is not little, nor little Pulse faint; for in a Lithargy, it is faint and great. Now that the strength may

*A threefold cause of  
the infirmity or  
wanting of strength.*

be better known by the pulse, there is a threefold cause of weakness: the first is that which by degrees decays the substance of strength, a second is that which Suddenly destroys it, a third is that which overwhelms strength, by its plenty, or extinguisheth it by its malignity. A faint Pulse alwaies shews weakness, and the other pulsations joyned with it shew the cause of that weakness. Therefore when the vital faculty becomes weak by distemper, want of nourishment, or continuance of a disease, the Pulse at first



first appears faint, and then smal without, any inequality, and it is rare and slow, if there be no Feaver, often, and swift, if there be; when the faculty growing weaker it becomes *myurus*, or like a moustaile reciprocal, then after it is a deficient reciprocal, and formicant, and then it seems abolished or gone, except there be a Syncope or swooning, the last of all is a truly abolished Pulse which is a little in the outward parts of the Arteries after they are dead. When the faculty is weak from a sudden dissolution and dissipation of spirits, as by grief, watching, strong Evacuations, and there have been evident and efficient causes of the same, the Pulse at first is faint and smal, often, and quick, but not unequal; when the faculty grows weaker, it is undose or wave like, vermiculant, formicant, seemingly abolished, and last truly abolished. When the Substance of the faculty is not consumed of it self, but is pressed down by plenty and flux of humors, or by an Obstruction, or preternatural Tumor: and also when it is extinguished by malignity, as in a pestilent Fever. The Pulse is faint, smal, slow, and rare, and continually unequal in so much,

as



As it is one while faint, and then presently vehement, little, and then presently great, quick, and presently slow, often, and then presently rare, or seldom. Great and vehement Pulses the more they are, the less the faculty will be oppressed, but the more the pulsations are small and faint, the faculty will be oppressed the more. When the faculty is so oppressed, that it will be suffocated, the

*What an intercurrent and intermitting Pulse foretells.*

Pulse at first is intercurrent, and then intermitting in a multitude of pulsations. Intermission, or Rest the longer it is, the more is the danger. That rest is counted long, which is longer then the beating of two stroaks, that is short, which is shorter then one. Intermission of pulse is most dangerous in young men, less in children, not at all in old people. Sometimes it is not deadly in young men when it is usual, and from Obstruction of the Arteries in time of health, or from a long disease as an *Asthma* from intermission in one pulse or stroak, many old men and children have escaped, but never one young man. If Intermission continue long, it threatens sudden Death, and that the vital heat of the



the heart will suddenly be extinguished and the animal faculty in an Apoplexy, long outward Rest, and ceasing to beat, is neer to intermission, onely in this it differs, that it is shorter without inequality, but with slowness, but intermission is with a quick and unequal Pulse. It shews that either the body of the heart, or spirit, and blood is shut up, or that some part adjacent is very cold; and it is less dangerous then intermission, but sometimes it causeth sudden Death. An Intercurrent pulse declares the same with an intermitting and hath the same causes, but it is less dangerous, because in it the faculty being strong, striveth against the hurtfull causes, but not in an intermitting. Then follows a Pulse that intermits in one stroak, this shews that Nature is hindered by unwholsome causes, but yet that shee contends with them: this is worse than a Pulse that intermits in many stroaks, because Nature is not only hindred in every fourth or fifth stroak, but in all, which shews sudden Death. Of this kind

*What a caprizant  
and dicrot or re-  
current pulse sig-  
nifies.*

is the Caprizant and Re-  
current pulse, they plain-  
ly shew either the un-  
equal



equal Distemper of the Heart; or that there is plenty of Smoak, Excrements not alike in all parts of the Heart: For the hotter parts contend with the Cold, and the free parts contend with those that are burdened, so that those which by their lightness and heat flie up at first, are drawn down by those parts which are cold and heavy, especially when the Faculty is weak, and the Artery hard. An

*What a wave-like and worm-like pulse signifie.*

ndose or vermiculant pulse shews that the Faculty is hot strong, and the strength is much abated: And the formicant Pulse is next to

these. In the Inflammation of the Liver and the Spleen, and other Bowels, and in a Scirrhus, because the Pulse grows harder, it can neither be vermiculant nor undose, nor in an Hectick, nor in a Consumption, though death be at the door, but

it will be faint and unequal. *Myurus*. *Myurus* or Mouse-tayl Pulse when it is in one stroak, shews in a lean Body the weakness of the Faculty, and that the Heart is so weak that it cannot send its force equally to the extreame parts. This Pulse is evil and fore-tels destruction, though it be reciprocal. A

defi-



deficient reciprocal Pulse is worse then this, and Myurus not reciprocall is worse then that. Sometimes Myurus comes from evil shape of the Artery, as when the middle of the Artery lies under the naked skin, and both sides ly deep. this shews that the faculty is so weak that it cannot lift up the Artery and lay it even. This is often seen at

*Trembling Pulse.* | the begining of cold fits. A trembling pulse which is necessarily faint and little, shews that the faculty is weake,

and the Artery soft, and the body slender; a convulsive pulse is not ordinary. The last are an apparent abolished pulse, and a truly abolished when the faculty

*An ordinate and inordinate pulse.* | is quite extinct. Of what sort soever an ordinate pulse is, it is faithfull or true, and an inordinate is

untrue. Moreover a good pulse and ordinate is most sure and the best: an evil pulse and ordinate is the worst, and worse than an evil pulse inordinate.



## CHAP. VIII.

*What Urin is, and how it  
shews the Diseases of the  
humors and parts.*

**B**Ecause the Excrements of the body are a portion of the parts affected, or of the humors offending, they certainly shew the constitution of the same, and are the chief demonstrative signs. The Urin comes chiefly from the whol body

*What Urin is.* and generally signifieth. Urin is the Serum or Vehiculum of the blood separated from it by the force of the Kidnies. Even as when Milk curdleth, so doth the whey in the blood separate it self from the thicker substance thereof. It is mixed with the Blood, that it might wash it, being thick and full of Fibres, and carry it

*The matter  
of Urin.*

through the smallest Veins into the extream parts. This Serum or Whey is made of drink or what liquor soever the meat  
is



is moistned with, and without it the Body would receive very little Nourishment from the meat. Therefore is drink necessary for all Creatures, but less for Birds which piss not, and more for Men and Beasts. In the concoction of the stomach the whole Meat is mixed with Liquor, and the whole strength of the meat is in that Liquor, when it is made one even Substance called *Chyle*. This is sucked up by the Mesentery Veins, which carry whatsoever is profitable thereof to the Liver: And when it is made Blood, as the melancholy Part is carried to the Spleen, and the Choler to the Gall, so the Urin (the proper Excrement of the Liver, as the ordure is of the Stomach and Guts) being unprofitable and superfluous, is drawn out of the gibbous parts of the Liver, by the emulgent Veins and force of the Kidnies: but not all, for some is sent with the blood into the whole body, which when it hath performed its duty in carying the blood, either is sweat out, or returns by the same way it went, into the Reins and Bladder.

*From what parts  
the Urin takes  
an Impression.*

Therefore the Urin comes not only from the Liver, but from the great and



small Veins and the whol body. He that shall live two or three daies without Drink shal plainly perceive this. And if the Urin be not mixed with too much Drink or other things, it wil manifestly declare the Constitution of the humors in the Liver and great Veins, but more obscurely those in the small Veins and in every part, for while the Urine was mixed with them, it contracted their qualities, and now being as a part taken from them, it plainly shews their constitution. Therefore if either the Bowels or great Veins, or Head, or Lungs, or any part have a Disease, because it imparts it to the humors contained in them, the Urin which is the companion of the blood and humors wil partake of the same, and being sent away, wil shew the signs of the Disease. And also it will shew the Diseases of the parts through which it passeth, as of the Reins, Ureters, Bladder and Yard: for though it stay not long in them, yet it takes away with it their filth ( if there be any ) Therefore the Urine shews the Diseases of all parts which it toucheth, but whether with the Disease, it plainly shew the part affected we shal hereafter discourse. But it shews  
the



the faults of the humors and parts by its Chymosis, or Parts, or Colour, or Scent, or Contents, all which we shall distinctly speak of.

## CHAP. IX.

*What is to be Observed before we give determinate Judgment of Urin.*

**Y**OU must take the first Urin after sleep and full Concoction, and all of it, because no part can plainly express all the signs. Let the Urinal be white and transparent, and long, least the *Hypostasis* or Sediment be divided, and big enough to hold it all. Let it be stopped and kept from the Sun, Cold, and Wind, that it be not troubled or made thick, let it stand still til it be cold, and be kept not above six hours lest it corrupt. If it grow thick or muddy by cold, or of it self, let it be turned at a gentle fire, and not stir'd lest the Sediment be dissolved,



which cannot be extenuated or melted by the fire. But why urins

*Why some urins are thick, others not.*

that are thin are without great cold turned, is from the Natural heat thereof,

which as it doth the Sediment, so doth it dispose of, or distinguish other parts.

This heat is sometimes weaker and stronger. Let the Urin be lookt upon, or cast in a place that is not too dark, nor too light, nor in the Sun; and let the light rather come down into the Urinal, than upon the side of it. These are to be considered in urin: Chymosis, Perspicuity, and Purity, Quantity, Colour sent and contents. All these shew the internal Diseases, both according to, and besides Nature. Urin is altered

*Urin is altered by things taken in, and by the fault of the reins and bladder, & by Diseases of the reins and other parts.*

by things taken in, and by the passages of the Reins and Bladder, or by the Veins. Therefore there are manifest Qualities stampt upon the urin from three causes. Immoderate drink especially water, or thin white Wine, makes urin plentiful, thin and crude and such as doth not shew the Diseases of the Parts and Humors,

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nor the qualities, because it runs suddenly through. Also Saffron, Cassia, Rhubarb, Senna, Madder change the Colour, Garlick and Turpentine change the Scent. For the qualities of these being preternatural, flow forth with the Excrements, especially with the urin, therefore these so alter it, that neither the Disease, nor the Constitution can be certainly discovered. Therefore let the urin which is the declarer of Diseases, be defiled with no other external mixture or quality. Also if there be an Ulcer or Imposthume in the Reins, or Bladder, or Ureters, or Yard; the urin will be thicker, and troubled, and have white Matter, or Blood, or Sand, or Filmes. These faults in the Reins and Bladder change the urin very much. But that Urin which is neither changed by the Reins or Bladder, nor by the quality of external things, shewed most certainly the Diseases in the Veins and other parts. Therefore take heed that outward things taken in, or the Reins deceive them not. To prevent which we will divide the causes and qualities of Urin into three differences into external, into the Causes in the passages, and thirdly into the Causes from the

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whole



whole Body. By this Observation and Differences, you may have a certain and true knowledg of Urin.

## CHAP. X.

*What is the best Urine, and how it changeth by age, sex and temperament.*

**F**irst we must know what urine is best which may be the rule of the rest, such a Urine must be of indifferent substance, not so thinne as water, nor so thick as that of beasts, of a gold colour, or yellow. This we account the mean between the extreames, it must be of an indifferent quantity answerable to the drink taken the day before, or somewhat less, because some of the drink is consumed in the body. The sediment must be white, light and equal, picked at the top as we shal shew. There must be no thick body in it, nor bubble, nor filme, nor the like. This shews that the concoction  
is



is every way good, and the body sound, the temper excellent, and the age youthful. For no other urine is so for a woman though never so temperate, in her prime hath a Urin that differs from this. For

*A womans  
urin.*

a Womans urin is not thin (as some affirm,) but more thick, and not so pure and transparent as a mans, but somewhat

troubled, and unclean with many things flying in it. For she hath more Superfluities in her Womb and Bladder then a man, which shews not only Crudity, but her Sex chiefly, according to the plenty of these the Sediment in a Womans water is greater, thicker, and whiter. And he

*Childrens  
urin.*

that shal compare men and womens Urin often, shall distinguish them by his Eye. The u-

rin of Infants and Boyes is whiter and thicker, and hath more Sediment then that of riper years. For though there be much vital Heat in them, yet being abated by the plenty of Humors,

*Old folkes  
urin.*

they have such an urin. The urin of old People is white, thin, with little Sediment, which

shews Crudity and weak Concoction, because the Heat in them is little



tle and weak. By these Examples it is not difficult to conjecture, what Urin ought to be in every Constitution, and how much every Urin differs from the best. Therefore you must conjecture from the Sex, temperament Natural and acquired, and from the age; what kind a Natural urin ought to be: So that when another sort is brought you, you may quickly remember how much it differs from a Natural. But before you judge of the Disease by the Urin, you must consider what kind of life the Party hath led a little before. For great Exercise, Watchings, Anger, Fasting, and use of hot Meats, as they increase the Natural heat, so they inflame the urin, and make them higher with a mixture of Choler, with some contents, so doth hot air or weather. On the contrary Idleness, much Sleep, Sluggishness, Gluttony, and Drunkenness, use of cold Meats, causeth white and chick urin, with many crude Contents: And so doth cold Air and Weather, without the Observation of these things, you can give little Judgement certainly of Urin, nor distinguish between the Urin of sound men, from that of the sick.

C H A P.



## CHAP. XI.

*What much and little Urin  
signifie.*

**I**F Urin be indifferent in quantity, it shews there is but moderate Serum, and that Nature doth all things, and is sound. Much urin comes sometimes from much Drink, or thin Wine, or Water; or from diuretick Medicines, or from Cold, or other external Causes. Sometimes from a fault in the Reins, when they continually draw the Serum from the whole Body by a great force, and send it forth, especially when a Feaver that burns the Bowels, hath melted the matter collected, which is drawn by the Reins. This Disease is called *Diabetes*, from the sudden passage of the urin, which is much, white, thin, and without a Sediment. Sometimes it comes from an inward Disease, as when great plenty of water long contained in a place, breaks out, sometimes from a Droplie, sometimes from a waterish Crudity about the Guts, when  
it



it goes forceably to the Reins. The Original of all this is the course of Diet, for nothing can come from the Body, the matter of which was not first taken in. This Evacuation, although it a little weakneth, yet it easeth the Stomach and Belly of a weight, and extenuateth not the other parts of the Body. Sometimes the whole Body and Humors melts into urin. As we have known a Tipler that was full bodied, who in eight dayes without the force of any Disease grew very thin and slender. This may be also from a Feaver, but then the great quantity of urin is not thin and white, but flaming, or Raïson-like, with Fat like Oyl at the top. This is the beginning of a Hectick Feaver. Little Urin neither from little Drink, nor from a dry Diet, nor from sour and thick Drink, nor from much Sweating, nor Purging, nor great Labour, shews a Disease, and that likely in the passages of the urin. Obstruction or preternatural Tumor in the Reins, causeth this commonly and then there is a Sense of weight and heaviness, and the like manifest in the Contents. If there be Obstruction  
from

*Little urin,  
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from the Stone or other Cause on both sides of the Ureters, there is great pain and fixed, as in the stone called *Nephritis*. If the Neck of the Bladder hath a Tumor, or thick Flegm, or a Stone, there is difficult Pissing, or stoppage of Urin, with pain in the Privities and Perinæum, and there are many Setlings and flying things in the urin. When urin is little without these, it comes from a thick and slimy Humor, which is hard to be separated, and to pass through. Sometimes the vehemency of a Fever stops the urin, and then there is Heat and other signs of a Fever. Sound people make little urin when the drink goes into the Nourishment: This is usual in thin extenuated persons, and those that are lately recovered from a Disease.

## CHAP. XII.

*What the Scent of Urin  
signifieth.*

**T**O smell to urin is a nasty trick, and misbecoming the dignity of a Physician, but sometimes against our Will  
there



there is a Scurvey scent, especially when the urin is hot, or hath been turned at the fire. A sweet Scent is not to be expected from Piss, except it be from Turpentine, or Musk, or Silphium; or from some sweet Medicine taken. But in sound Bodies and good Constitutions, the Scent is moderate. Sometimes the stink is from things eaten, as rotten Cheese, or Garlick. Sometimes from an ulcer in the Reins and Privities; and then the urin is white and thick, with a mattery Sediment. If it come from a Stone in the Bladder, there is thicker Snor at the bottom, and it is made with pain. A stinking urin coming from the upper parts, whether it be red and thick, or (as it is sometimes) thin and transparent, with or without a Feaver, is a sign alwayes of Putrefaction: And this Corruption is either in the Humors or the Substance of the parts. If the stink be new, and in a thick troubled urin, it is from the Humors. If it be old, and in a thin and transparent urin, the substance of some part is corrupt. When stinking urin is made in a Crisis, it comes in a day of Judgment, and is much, and the Patient presently recovereth.

CHAP.



## CHAP. XIII.

*What several Colours in Urin  
signifie.*

**T**Hese Colours are cheifly to be observed in Urins, White, Corn-colour, Citrine, which is the mean of all, Gold-colour, Saffron-colour, red Raison-like, Green, Skie colour'd, Blew, and Black. There are two efficient causes of these Colours, that is Heat of the Bowels, and Body, and Mixture of a strange Humor. For Labour, Fasting, Heat, or a Feaver, or whatsoever heats the Body, doth also colour the urin, and the more when they are vehement. And that urin which is longest held in, and which is made longest after Meat, is higher then the former. Also when Choler gets into the Veins, and is mixed with the Serum (as in the Jaundies) it makes the urin yellow or citrine, and so is it with any other Humor. Now the colour from a simple distemper differs from that which comes from mixture



ture of humors For the first seldom is a-  
*Yellow urin.*bove a red, and is in a thin  
 Substance of urin or indifferent, but the  
 last reacheth to all kinds of Colours, and  
 makes the urin thick and troubled. Al-  
 so a temperate Heat makes a cirine or  
 yellow Colour, in a temperate man in  
 his flourishing age. That colour which  
 is beneath the mean, is a sign of Heat a-

bated and Crudity. A white  
*White like* and thin, transparent urin like  
*water.*water, if it come not from

much thin drink, shews either  
 great Obstruction of the Reins, Mesente-  
 ry, and Liver, or weak Concoction,  
 from an extream cold Distemper of the  
 Liver and Stomach. Also this white u-  
 rin may come from a Feaver, when the  
 Choler is carried up to the Brain, and  
 this shews a Phrenlie. White and thick

*Glaucia thick,*  
*white.*

*Milk-like.*

if transparent as horn (cal-  
 led *Glaucia* and *Charopa*)  
 shews much predominant  
 Snot-like Flegm. If it be  
 obscure as Milk, it shews a-  
 bundance of thick and slimy Flegm. If  
 these urins continue long, they foretel

*Corn-coloured.*

long and cold Diseases.  
 Next follows *Spicea* or  
 Corn-



corn-coloured which shews less crudity and heat neer to that which is temperate.

*Citrine* | The Citrine urine is the middle  
| sort of all. above that is Gold  
| colour, Saffron colour, and Red,  
all these shew that the heat is increased

*Gold Saffron* | beyond measure : and if  
*and red Colour.* | these be pure and transpa-  
| rent, they shew a pure sim-  
| ple distemper, if thick,

and troubled they shew the faults and  
and mixtures of the humors. a red u-  
rine if it be transparent is called burning

*Red.* | or flame-like, it shews the abun-  
| dant heat of the Liver, and often  
| a burning Feaver. If it be thick

*Thin red.* | and obscure with or without a  
| Feaver, it shews mixture of  
Yellow | Yellow | Yolk-like or red Choller.

*Thick Red.* | Such appears commonly at  
| the coming of feverish fits:  
| but cheifly when the substance  
of the Liver is defiled, from a Phlegmon  
or Scirrhus as in a Dropsie, or when it,  
or the Gal are greatly obstructed, by  
which means the choller flows into the  
veins and urine, and so infects it that if  
you steep a linnen clout therein it will be  
yellow, this will be so also after taking



of Rheubarb. And it shews otherwise a Jaundyes coming or present, by this is a flaming urine distinguished from that which with Choller is made Saffron-co-

*Blood-like  
Urine of two  
sorts.*

loured or higher, bloody urine whether it be only like water wherein flesh hath been washed, or pure blood when it grows cold hath a bloody clod at the bottome. This comes from the wearing

of the Reins and opening of their Veins, from whence blood presently flows by some Stone. They err that impute this to the weakness of the Liver: for it cannot be perceived how blood can come from any other part with the Urin without a Distemper in the Reins. Therefore if there be bloody Urine and the Loyns and Reins not hurt by a Fall or Stroak, it comes from a Stone wearing the Kidnies, especially when there is great

*Black,  
Troubled.  
Red,  
Grape-  
like.*

*Green  
Urine.*

exercise. A troubled black urin went before this, and shewed a Fit of the Stone to be at hand. Raisin-colored, or like black. Grape follows the Red, this shews that the Blood or Choller is burnt & turn'd to Black. Green shews plenty Verdigreese-like Choller. Sky-colored,



lored, Blew, and Lead-colored Urin, except it come from Stroaks and shews either predominancy or mixture of Melancholly or extinction of natural heat. The last of all is Black, which if it come from Red and Green color, shews burning and mixture of Melancholly, but if it follow a Sky-color and Livid, it shews utter extinction of Heat. Sometimes these Urins are made in a Crisis, both in sharp, and also in long and melancholick Diseases: It is upon the directory day of judgment, and it is without pain, and signifies the Recovery of the Patient.

*Sky-colored  
Livid and  
Lead-colored,  
Black.*

## CHAP. XIV.

### *What the substance of the Urine shews in diseases.*

**T**He Substance of the Urine is either thin, thick, or mean, a thin Urine



is only found under those colours that tend to redness, as white, corn-colour, golden, saffron coloured, and red, it is never sky colours, livid, or black, a thick Urine is capable of every colour. for there is a thick white, & thick black also. Therefore thin Urine not from immoderate drink nor other external cause follows Obstruction of the reins, and ureters, which will not suffer any thick thing to pass, this is in the fitt of the Stone, when the head of the ureter is stoppt with a stone: Sometimes it follows after the concoction is weakened, and the vital heat abated, from a distemper alone without a fault in the humors, Sometimes the heat is so little that water or drink comes forth as it is drunk, and this is extream crudity. Our native heat that concocts the nourishment and humors, endeavours chiefly a mediocrity of Substance, and then adds a colour according to the nature of the parts: Therefore the Concoction is known by the Substance, rather then the colour of the urine. Wherefore *Hippocrates* said while the Urine is reddish and thin, it signifies a crude disease; a moderate Substance of Urine signifies

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lively heat, and exquisite concoction in the Stomach, Liver, and Veins, this is in those three middle colours, yellow, or lower then gold, gold colour, and Saffron colour. A thick Urine except it come by reason of the opennes, and loosness of the passages of urine, comes from heat oppressed, and crudity, not because the heat is distempered, but burthened with crude humors, both thick and thin obtain the same Substance by long concoction. To thick

*Fat oyly like Urine.*

Urins belongs the fat and oyly, not that upon which fat swims like a Spiders web, but that whose Substance represents Oyl or Grease in thickness, and which being moved, appears heavy as Oyl. This shews that the Body melts either with a Consumption or Hectick Feaver or a Dropsie.



## CHAP. XV.

*A transparent and troubled Urine, and what they signifie.*

**A** Perspicuous and clear Urine is that which the sight easily perceiveth, a troubled and obscure is that which we cannot see through. A turbulent and troubled differs from a thick, and a thin from a transparent, thus as the white of an Egge and Oyl, and melted Glasse and red wine, are truly thick but not troubled, but plainly transparent. and white thin wine is commonly turbulent, and *aqua vitæ* is very thin but sometimes obscure, and turbulent. But to clear this up we shall devide turbulent and troubled Urines into three sorts, one is called *turbata* or troubled, from external cold, this is the thickest and most obscure, and infects the urinal at the top of the Urine  
with



with white filth, this by heating wil come to its propper colour, some Urines are more easily troubled, and come never as their condition is, outward cold causeth it, for if it be in a hot place it continueth as it was first made. Another troubled Urine is truly so when the substance from it self or other mixture grows thick, Such comes from ulcerated reins, this cannot be dissolved by heat and hath many little bodies swimming in it, which when it stands still, fall down into the thick sediment, and then the rest of the Urine is clear. It is compared to wine upon the lee. The third sort is called a confused Urine in which nothing appears to swim, but it is all alike in every part, and hath no Sediment or the like, ( though it stand long ) and wil not be altered by heat or any fire. It is compared to wine that thickens by age or is changed with Thunder and Lightning, and dead without any brightness or shining. A Transparent Urine shews perfect concoction, goodnes of humors, and plenty of native heat, the force whereof remaining in the Urine, makes a sediment by seperation.

A Transpa-  
rent Urine.



That which is changed by Cold, and by Heat comes to it self is of little significance, except it appearing first in acute Diseases signifie beginning of Concoction; for in the beginning a thin Urine doth not

*Turbulent  
Urin.*

easily turn, but growing thick it doth. A truly turbulent or troubled Urine comes from a Disease in the Reins or Bladder for the most part, in those that have much humors which the Urine carries with it, or a simple ulcer from whence comes Blood, or a foul Ulcer from whence comes matter, by washing of these a urin turns thick and turbulent. Therefore in the Stone, men seldom piss cleer. A troubled urin without these Diseases shews thick humors in the Veins hard to be concocted by the natural heat. Hence come long Diseases and stubborn, and Head-ach, as *Hippocrates* saith, they who have troubled urine like Beasts, have, or wil have the Head-ach. If it continue long it threatens a Lethargy. Urine sometimes is suddenly troubled, when Obstructions are opened and the thick matter which was lodged long comes from the Spleen, Liver, Reins, and great Veins. This comes to  
found



found men after Exercise, and to sick after a Disease, especially in a Crisis of a long Fever, as a Quartan, and in Diseases of the Liver and Spleen, and breaking of Imposthumes. All these come away with ease and refreshment to the Body.

A reddish urine or citrine that is yellow without sediment such as is made in the beginning of continent

*Reddish and troubled.*

and intermitting Fevers, and which is called a simpty crude urine, is called turbulent but not confused, it comes from a crude humor that is superfluous that gets out of the Reins, Spleen, Liver, as in the Jaundies, into the Serum or Whey of the Blood. A confused urine never follows the Diseases of the Reins and Bowels only, but always the Diseases of the Veins.

*Confused Urin.*

And it shews not the abundance of crude humors, but confusion of the blood and humors in the great Veins and corruption of the same, commonly malignant. Because putrefaction mixeth, confusion and disturbeth all things. Therefore this kind of urine is seen only in continual dangerous and malignant Fevers: From hence I could shew that u-

rine



rine which defiled with no fault of the Reins, doth not alwaies shew the condition of the Blood and its Juyces; for somtimes it is pissed forth yellow, thick, and troubled, and the Blood which is then let out, is exquisitely pure and red. And this often in Quartan and intermitting Tertian, and in the Jaundies when the superfluous Choller gets out of the Liver, or Gall, or other parts into the Veins, and is not mixed with the Blood,

*A notable  
Document.*

but the Serum or Whey. And here they grossly mistake that presently prescribe letting of blood when the urine is thick and red. Also somtimes the urine is according to Nature both in color, substance and Sediment, & the blood then let, is foul both in substance and color. This is commonly in the state and before the Crisis of a continual Fever, when the urine is perfectly concocted, and Nature hath not as yet endeavoured any evacuation of the noxious humor. These are the things that may be observed at the first beholding of urine, from the quantity and scent, especially from the Colour, Substance, and perspicuity before any thing is settled, but as I shewed you must be discreet



creet. Now we shall speak of Contents  
in the urine.

## CHAP. XVI.

### *Of things mixed with the Urine.*

**O**F things mixed with the urine, some swim at the top, some in the middle, others settle at the bottom; of those at the top, the first is the Crown about the top. This can scarce be seen in a ne-qual urine, that is all alike, but easily in that whose parts are not alike when the humors are disturbed. For the top being thinnest is easiest changed, and often shews many things to the Eye in colour and Substance, which cannot be seen be-

*The Crown.*

low. The Crown shews commonly what blood there is in the great Vessels, for when it is thin and white it shews that the blood is full of Water; when thick and white, that it is full of Flegm; when yellow, that



that it is Natural, when it is of a Saffron-colour, that it is full of choller; when red, that the blood is burning hot; when it is green, that there is Verdigreese-like choller in it; when it is Sky-colored or dark blew, that it hath melancholly, or that the blood wil presently turn into such humors by corruption. Therefore the last of these shews either a melancholick Disease or Epilepsie. When there is much froath at the top without shaking of it, it shews much Wind, that the Stomach and Guts are stretched that the Colick is at hand, either by the eating of fruits or the like, or from the weakness

*Froath.* | of the Natural heat. And if this Froath continue long with great Bubbles it shews thick and slimy humors and obstructions from thence; if the Bubbles easily break, they shew thinness of Wind and humors.

*Bubbles.* | If there be little Bubbles about the Crown of the Urin, there is Head-ach, called Cephalalgia if they are about all the Crown, or called *Hemicrania* if they be but half way about it. And if they be yellow the pain is greater, and if white and pale, it is less, and it will be long, if the Bubbles last long.



long. When the Bubbles are in the top of the Urine, it is a sign that the pain abateth : for when these are in the upper part, they shew pain in the Head which is the upper part of the Body, from Wind or a Humor of the colour of the Bubbles; when there are Bubbles like little grains in the Crown which go downward when the urine is shaken, and presently ascend; there is a Distillation from the Head upon the Lungs, Stomach, Shoulders or other parts, the nature of which distillation is known from the color of the urine, Crown and Bubbles.

*Fat at  
the top.*

Fat swimming at the top like Cob-webs signifie a Consumption according to Hippocrates. And except it be from melting of the Reins, there is a Fever Hectick or Burning, or consumption of the whole: when the Fat swims asunder like little Atomes of Oyl, it shews both, but not so plainly. But I have observed these in urine after drinking of Oyl. And the former as they are dispersed easily shew the vanishing or continuance of the Disease. Somtimes there are small Bodies which fly in the urin like Bran or Scales.

Bran in the urin signifies Scabs in  
the

*Bran.*



the Bladder, if it be in a thin Urine, it signifies a fiery melting Fever which broyls the blood in the Veins, and burns the substance of them, and makes a scurfe fall off, which comes forth with the urine. Scales in a stinking urine shew an ulcer in the Bladder. If Scales come forth without ulceration, there is a burning Fever which melts the upper coats of the vessels into Scales, which causeth a Consumption of the solid parts, but the less dangerous, as the Scales are thinner then the Bran. Those things which fly like thick Bran signifie the same, but in a less degree: for when thick blood is either burnt with a Fever, or when the Fat in the flesh is melted and the hard flesh is as it were fried in a pan, then the things flying in the urine are like thicker Bran, and signifie long sickness. In Women with Child that are in health, there swims in the urin things like thin Bran or Starch, which after settling make a thick sediment like toazed wool, and the rest of the urine is troubled a little, Green or Blew. When the Reins are ulcerated there are little bits of flesh in troubled urine. Hippocrates saies that white Hairs come from

*Flesh.*

*White Hairs.*

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from the Reins, but we observe that they come from the *Paraptata* or spermatick Vessels from whence they are long and round, and made of seed, which falling down by the force of the Disease grow hard with heat. These appear in abundance in the urins of them that have had a filthy running of the Reins, and of women that have the Whites or foulness of Womb. Sometimes the first urine after Copulation hath the like, or somewhat thicker. Moreover pure blood or clotted shews a green ulcer; but matter shews an old fordid ulcer either in the Reins or in the neck of the Bladder, and it is distinguished, in that when it is in the neck of the Bladder there is great pain, but none when it is in the Reins. And in that coming from the Yard and neck of the Bladder all the matter comes by itself, without urine, or at first beginning of pissing, but that from the Reins comes with the urine, or at the end of Pissing, mixed accurately, but settles down afterwards. Sand comes last after pissing, the Red and Yellow comes from the Reins, the white from the Bladder as is thought, but when there is a fordid ulcer in the Reins, there falls white Stones from thence cancred

*Sand.*



as with hardned matter. When thick  
*Snot-like* | flegm like Snot sticks at the bot-  
 tom of the Urinal, which was  
 pissed with pain, it shews the  
 Stone in the Bladder, or an Ulcer in the  
 neck of the Bladder: For the Blad-  
 der being cold and membranous, when  
 distempered breeds such matter and the  
 Stone helpeth by its weight. But that  
 matter which is voided without pain  
 comes from an ulcer of the Reins. They  
 are grossly deceived that being ignorant  
 in Anatomy and the works of Nature,  
 think this Flegm comes from the Brain  
 or crude Stomach into the Bladder: for  
 how can it fall pure without Blood  
 through the Veins into the Reins, and  
 pass through them alone? Seed, Matter  
 and Flegm are to be seen in an urine:  
 Seed being thin and light swims at the  
 top, Matter and Flegm settle down,  
 Flegm being thick and glutinous sticks  
 together, but Matter dissolves by shake-  
 ing: But because the greatest part of  
 things contained in urines flows by the  
 passages of the urines, lest they should  
 deceive I will set down the Cause in or-  
 der from the Original. Red  
*Red Sand* | Sand comes from the Reins if it  
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be much and thick, it threatneth the Stone: this growing together, there is a stone as big as a Barly corn which falling from the substance of the Reins, makes the urine thick and troubled, red or blackish, which shew the pain of the Stone.

*Things worth  
observation  
concerning  
the Stone.*

A Stone fixed in the head of an Ureter causeth pain, and then the urine is thin and white, as in all stoppages of the Reins. Sometimes the Stone grows so big, and is so held in the Reins that it cannot be removed, and then in strong exercise it wears the Reins and causeth thick and troubled, and bloody urine with clods at the bottom. The like comes from a fall or stroak, seldom from great labor. When there is an Ulcer the urine after rest is white and thick, after labor it is high colored, with a thick sediment, and then follows a thick white stinking and mattery urine like milk, with matter at the bottom when the ulcer is hollow and foul, they who have such urine, you can give no certain knowledg of other Diseases in them, because it alwaies appears as from the Reins. When the ulcer of the Reins is very foul, and a Fistula, there is a thick sediment slimy and glutinous like Snor



or the white of an Egg, in a white, thick, troubled and stinking urine. The like is in a Stone of the Bladder; for though that matter comes commonly from the Reins, yet it grows about the Stone by weakness of the Bladder, because the same remains after the Stone is gone. Also foul ulcers in the Bladder and Yard cause such urins especially when it is, from a filthy Gonorrhæa, in the *Parastate*: when such ulcers begin there are threads in the urine, first thin, then thick, which makes the whole urine thick, and lastly there is a Snot-like sediment: And though the ulcer be cured, yet the threads remain from the weakness left in the spermatick vessels.

## CHAP. XVII.

### *Of the Sediment and the Contents in an Urine.*

**T**HERE is much controversie about the Sediment, but we shal aim at the truth. The Urin is made of liquid matter



ter and drink which passing all parts, by concoction in the Stomach, Liver, and Veins is mixed with the meat, blood and humors, and hath the same colour and substance, as Broath made of herbs and meat: for it doth not remain simple as the drink was first, but grows thicker by other mixtures. And by staying in us it gets natural heat which *Aristotle* observes to remain in the excrements of all creatures: for whatsoever thick substance is in the urine voided, although it be not discernable, yet it presently is separated and goes together, and commonly setteth even as the dregs in distilled Rose-water. And this is done by the natural heat, whose property it is to separate things heterogeneous or of divers natures. This thicker part so separated by the natural heat and sent down, is the Sediment or *Hypostasis*, and it is not an Excrement (as *Actuarius* would) from that concoction only which is in the Veins or solid parts. Nor is it (as others would) a part of crude meat which is sometimes sent from the Stomach into the Veins with the serum, but it is that which had its beginning and perfection every where with the urine.

What *Hypostasis* is.



Therefore the *Hypostasis* is not only a sign of the Stomach and solid parts, but chiefly of the great Veins. Therefore as the original of that and the urine is one, so do their substances greatly agree: for much very thin waterish urin hath no sediment, a thin urine simply hath a thin sediment, as in them that have crudities and weak concoction, an indifferent Urine hath a mean sediment, and a thick urine, a thick: As in Children and Gluttons who eat much and concoct well. But that which grows thick and is troubled by the mixture of some external thing coming from the Reins or Bladder, hath a thick settling, which is not properly a sediment, but the dregs of urine. So then the *Chymosis* or thick part of the urine gives matter to the sediment. And the natural heat seperates it, which if it be strong, it quickly gathers the invisible matter dispersed in the urine, into a body and sends it down, and then makes it, or alike in all parts, and smooth without any inequality. Weak heat in urine makes a slower settling, and sends it not down, but lets it hang in the middle, this is called *Eneorema*, and is divided and uneven. A less heat doth very slowly separate and cannot collect or gather it, and



and so leaves it scattered or swimming at the top like a Cloud. Therefore there are three sorts of things contained in respect of position or place, the sediment is in the bottom, *Emacorema*, in the middle, and the Cloud at the top.

*A settling that hangs in the middle of the urine.*

*A Cloud.*

Lastly, when the heat is extream weak, as in a deadly putrid Fever, or too much oppressed with humors, as the Jaundies and Tertians when Choler gets in abundance from the Liver into the Veins and is mixed with the Serum, it doth not seperate at all, and the urine is mixed and very confused; these things are only observed in sick people of whom we shal speak. That which was subtilly disputed of old concerning the sediment of Feavers, wherein they said it was like matter, and a part of that humor which corrupted in the Feaver, but now is concocted and sent forth with the urine by the separation of Nature, is a destructive Lie in Physick: For the matter of a burning Feaver, which is parched Choller, cannot be turned into quittor or any other matter like it by

*The confutation of the Opinion of some concerning the sediment in feavers.*



concoction; nor is it here as in a Phlegmon. Nor doth the matter of a Feaver concocted in the state of the Disease til it be voided by stool in perfect Cris appear ever matter-like or white, but yellow and cholerick. How then can it be that the sediment which in the state of a Feaver is white, should be a portion of that yellow matter putrified which never grows white? Moreover if in the state of a Feaver any portion of the hurtful matter fall down, and not in the beginning or increase, the urine wil be thicker in the state than in the beginning or increase: but this we find false by dayly experience. For as urine is found crude and confused in the beginning of acute Feavers, so is it found thick. Therefore we must determine otherwise of the sediment of feverish urines. That it is not a concocted part of the humor which is putrified, but of the same matter as in sound people. And in Fevers when it first appears, it shews the victory of heat and Nature, which hath so tamed the putrid humors that they come to their former obedience: for that which they call the concoction of the matter of the Feaver is neither suppuration nor properly maturation, but only a restraint of putrefaction



trefaction or *Pepasmus*. In the  
state of a Feaver the matter is  
shut up in the Veins, and none  
emptied by a Crisis, and nevertheless be-  
cause it is at rest and in the power of Na-  
ture, the urin is purer with a sediment  
which certainly declares Natures con-  
quest. Also when the fury of the noxi-  
ous humor is suppressed, it flows less  
forth with the urine, and so it is thinner  
and less troubled than at the beginning,  
when by reason of the putrefaction there  
was a great perturbation and confusion  
in the humors, some force whereof was  
carried into the urine. Also when na-  
ture is uppermost, shee gathers the thick  
matter into the middle, or into the bot-  
tom; when a recoverable Wound sends  
out white and good quitor, if there  
comes a Feaver at the first it alters  
the quitor and dries the Wound, be-  
cause the natural heat is oppressed and  
cannot rightly concoct: after the same  
manner the Natural heat in Feavers be-  
ing oppressed and not able naturally to  
concoct the meat in Feavers, makes no  
concoction in urines. I shal speak more  
of this disputation in my Prognosticks  
when I shal speak of the concoction of  
Diseases. Therefore when our natural

*Pepasmus.*



heat hath overcome the pernicious humors and concocted them, the sediment is good, namely White, Smooth, and equal, which is best; an *Enaorema* in the middle which is white, smooth and equal is not so good as an *Hypostasis*, and shews that native heat is somewhat weak, because it cannot send the matter down being fully concocted. Also a good Cloud which is white, smooth, and equal is a sign of crudity and weak concoction,

*What Sediment is bad.*

and heat. A Black or blew sediment is worst of all and threatens death. A

Black or Blew *Enaorema* shews less danger, and such a Cloud shews less danger than that, in these the native heat is not quite spent, but is of some

*In sound people what contents are best.*

force. Every Content is best that is indifferent in quantity and substance, white, smooth, and equal,

*Much sediment.*

what errs from this is naught. The Contents are

much when accustomed, Sweating, Purging, or the like are wanting, and then they are thick and crude. That sediment which is much, from great eating and strength of the faculty, is moderate in



in substance and colour.

Want, Fasting, Watching,  
great exercise, and such as  
plainly consume the sub-

*Little or  
few Contents*

stance of the body make few contents or  
little sediment. And this is in sound.

In diseased people that sediment  
which is thick, is either from  
plenty of crudity which natural  
heat cannot overcome, and then

*Thick  
sediments*

there are other signs of crudity, or from  
a Crisis, and then the Disease apparently  
abateth. It comes sometimes from quit-  
tor and tough flegm, and you may dis-  
cern them. A thin sediment

shews crudity in Diseases, or  
beginning of concoction, in

*Thinness.*

sound people, it shews thin humors not  
brought to means of sub-

stance. A Smooth Content  
not divided, wrinkled or torn

*Smoothness.*

sticking together, without any rough-  
ness comes from strong natural heat; the  
contrary comes from weak

heat. So is an equal sediment  
all whose parts are alike in

*Equality.*

thickness and color, the unequal is when  
the parts are not equally concocted or  
colored. In Colors, Corn-colored, Gol-  
den or Red shews Choller to abound in

the



the Veins or the Blood to be corrupted with vehement burning. Although *Hippocrates* saith that a red smooth sediment in a red water shews health, black, blew and black shews extinction of vital heat or corrupt blood, or a black humor bred in it or coming from other parts. If there be no contents in sound people it is not alwaies evil. The urine is often thin from some great obstruction, or from much thin drink which is past away before it is concocted with the meat, in which there are few or no Contents, because there wants matter. In sick people that have foul humors in the Veins if there be no Contents, it is alwaies evil, and shews that Nature is hindered by plenty of corrupt humors: But here we speak of demonstrative signs from urine, we shal elsewhere shew the Prognosticks by which concoction, Life or Death is foretold in Diseases.

## CHAP. XVIII.

### *The Exercise of judging from Urins.*

**W**Hatsoever is preternatural in urines, except it come from the quantity



quantity of things taken in, shews that the Veins, or Bowels, or Reins or passages of the Urine are afflicted. The urine contracts the same faults from them, therefore consider first from what part or place they came: They that come from the Reins and passages of urine, you may easily know from what I have said concerning the Diseases of those parts, what they mean, and if none of those appear, you must refer all to the Bowels, great Veins, and the rest of the

*What a Physitian  
ought to consider  
before he give his  
Judgment of urin.*

Body. In the disconding of these alwaies remember what time of the year it is, what weather, and what are the Diseases of the Country, and what is commonly among the people, for that which useth to infect many is most to be suspected. Then find out the Sex, by asking if they know it, that the Nature and Constitution being known, you may know what Diseases the party is subject to. The Observation of these hath no small concernment in knowledg of a Disease especially when it is yong and no signs of it in the urine: for if it be an old man, and in Winter, and in a moist Country, it is very probable; but there wil be a Cough, Distillation or heaviness, and weakness  
of



of Stomach, especially if they be given to Gluttony or Drunkenness, and so of a moist nature which useth to contend with Diseases from Distillations. If it be a young man, and chollerick, and a Mid-summer in hot weather and country after hot diet & great exercise, you may suspect a burning Feaver, or a chollerick intermitting Feaver, or a Flux called Dysentery, or a Pleurisie, such as the party is most subject to, or that which is most common among the people, from these examples you may judge of other Diseases (without the Urine) Moreover a Urine which is neither changed by the Reins, nor force of external causes, shews the distemper of the Bowels, Veins, and the whole body, and whether the distemper be simple, or from foulness of humors, and what humor predominates, and if it be putrid, and with a Feaver: For colour shews the distemper; a thick substance or troubled, the fault of the humor; and confusion shews putrefaction. These are the internal causes of all Diseases, and though from thence we know not the kind of the disease, yet we may know thereby how to act or evacuate. Also the Contents shew certainly sometimes the part affected.

But



But because it is in fashion to seem to  
conjure by a Piss-pot, whosoever for  
vain glory will be like them, let him re-  
peat often whatsoever he first knew  
from the Urine, for by circuite of words

Fools are ensnared.

*What Piss-Pro-  
phets ought to say  
when a thin and  
white Urine is  
brought to them.*

Therefore when a white  
or corn-like thin Urine is  
brought, let him say that  
the Stomach and Liver  
are very cold, that he

loaths meat, and wants appetite almost  
quite, that after meat the Stomach is  
stretched, that belchings are many and  
sour, and there is much Wind to and fro,  
and that he is cold and heavy-headed,  
and the body is wholly faint. That he  
kept formerly an ill diet, either by cold  
Drink or Meats, or Fruits, or by Fasting,  
or Sadness. If the Disease hath been  
long, that the body is all over crude, and  
the Complexion of the Face lost, or  
there is a Flux, or swollen Feet, and a  
danger of Leucophlegmacy or Cachexy.  
And because such Urine is made in Me-  
lancholly, and swelling of the Spleen  
declare the Symptomes of that, as Sad-  
ness, Fear, troublesome Dreams, noyse  
on the left side, Heart-beating, Scoto-  
mia or Darknes of sight, and the like.

When



*What is to  
be said of a  
white and  
thick Urin.*

When the Urine is white  
thick, and troubled, because it  
comes from the prevailing of  
thick Flegm that is rough, let  
him say there is Head-ach or  
great sleepiness, that the Bowels are  
stopt with humors, and the Guts and  
sides are stretched with Wind, and there  
is danger of the Collick, and the Stomach  
is troubled with Loathing or Vomiting  
of Flegm. If this Urine shall be  
confused also, say it is a quotidian  
intermitting Feaver, and tell the symptoms  
thereof. If Urine be Golden

*What you are  
to say of a golden  
thin Urin.*

*What if the  
same be thick.*

color'd and thin, say the Liver  
is hot, with thirst, lean-  
ness, Watching, trouble  
sleep that the hands are hot  
in the palms, and the soles  
of the Feet. If the same be  
thick, say that Choller  
is in the  
bounds, and is vomited, that the mouth  
is bitter when fasting, and the Spirit  
faint, the Stomach is hot with thirst, the  
Belly pained or loose, which threatens  
Dysentery, or the body itcheth or is ma-  
ggy. If the same be confused

*What if it be  
confused.*

say there is a tertian or  
intermitting Feaver, Head-ach, Watch-  
ing



Doting, Thirst, or the like Symptoms of Feavers present or at hand. If

*What if red and thin.* | a red Urin, or thin, or indifferent, say the blood is hot, Head-ach beating or heavy, Laziness: and if it be confu-

sed, say there is a Synoch putrid with its symptoms. After this manner if from

other colours you conjecture the Jaundies or Scirrhus, or flegmon of the Liver, or melancholly from the Spleen, or the like, you must mention all the Symptoms and causes evident. And so you must

to when the parts affected are mentioned. But you must first cunningly ask this question, whether the Disease came suddenly or by degrees, & when it began, & hence you may conjecture whether it be acute Diuturnal Disease, for so, and by the estimation or considering of the Nature, Time, Country, and kind of disease reigning, you may come neer the bu-

*What of a Urin with bubbles* | siness. If there be bubbles in the top of the Urin in the Crown, say the head akes, or hath much humor in it,

and there is drowsiness and dulness, Lechargy, or Pallie or a worse Defluxion at hand, or when you know there are signs

of



of a distillation certainly, as I shewed, say the humor is fallen either upon the Neck or Shoulders, Sides, or Breast, or Lungs with a Cough, or Joynts. And if with the distillation there are signs of a Feaver, say there is a Pleurisie at hand, especially if it be Popular. If with the distillation the urine be oyly, say there is a Consumption present or coming. The vulgar people know only the names of these parts, as the Head, the Side from the Shoulder to the Hip, the Stomach from the Coller-bones to the Navil, the Belly, the Back, and the Members. And when ever you discover the part pained (for every man first take notice of pain) tell all the symptoms of that, and then wisely prescribe proper Remedies. He shal receive an uncertain success that constraineth Physicians to play the Sooth-fayers, by trying their skil in Urins. But a prudent and faithful Asker or Consultor will receive the benefit of sound Advise.

FINIS.

*Fernelius  
Cole  
Culpeper  
Med. Disting.*



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