Today, Shakespeare's fascination with medicine. The University of Houston's College of Engineering presents this series about the machines that make our civilization run, and the people whose ingenuity created them.

Shakespeare was born in 1564, just about the time medicine was moving out of the ivory towers of the medieval world. Practical anatomy and new techniques of surgery were changing the essential nature of medicine. The low-status medieval barber-surgeon was becoming a respected medical practitioner with a new arsenal of techniques for dealing with wounds and illness.

When he was 18 Shakespeare married 26-year-old Anne Hathaway. Susanna, the first of their three children, was born six months later. When Shakespeare was 43, Susanna married a noted doctor, John Hall. Shakespeare had known Hall for some time by then.

Doctor Aubrey Kail now looks closely at Shakespeare's plays, and he finds a startling imprint of the new medicine and of son-in-law John Hall as well. Shakespeare wrote *Pericles, Prince of Tyre*, at the time of the wedding. In it, the physician Cerimon is a noble man, doubtless based on Hall. A gentleman says to Cerimon,

*Your honour has through Ephesus pour'd forth
Your charity, and hundreds call themselves
Your creatures, who by you have been restor'd:*

Shakespeare portrayed many real-life doctors in his plays, often without disguising their names. Dr. William Butts, the real-life physician to Henry VIII, for example, shows up by name in the play, *Henry VIII*. The heroine, Helena, of *All's Well That Ends Well* was the daughter of the real-life French Physician Gerard de Narbon. When the king of France suffers an open sore, Helena uses her knowledge of her father's medicines to heal him.

All through Shakespeare's plays flow allusions to the corporeal human body -- its birth, death, and maintenance. Gloucester in *Henry VI* describes his birth: "For I have often heard my mother say, I came into this world with feet forward." Richard III complains that he was,

*Deformed, unfinish'd, sent before my time
Into this breathing world scarce half made up,*
The doctors around Shakespeare thought wounds should be protected from fresh air, so we read,

*The air hath got into my deadly wounds, and much effuse of blood doth make me faint.*

He clearly understood the connection of mind and body when he put these words in King Lear's mouth:

*... this tempest in my mind
Doth from my senses take all feeling else.*

Kail has chapters about Shakespeare on epilepsy, Shakespeare on venereal disease, on mental illness, geriatrics, wounds, therapeutics.

Many people have tried to diagnose Shakespeare's greatness. Maybe this odd book offers a new clue. For can it really be any surprise that the greatest teller of the human drama should tell his tales in terms of human flesh and blood?

I'm John Lienhard, at the University of Houston, where we're interested in the way inventive minds work.

(Theme music)

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