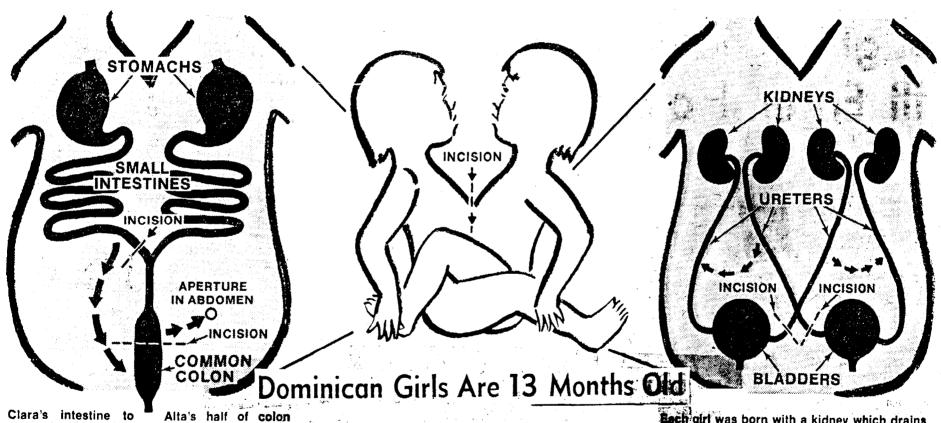
# The Eucliening Bulletin with sunday morning edition



Clara's intestine to connect to lower half of colon.

Alta's half of colon brought through abdominal wall (colostomy).

WEDNESDAY, SEPTEMBER 18, 1974

Backgort was born with a kidney which drains into the bladder of her sister. Two of the connecting ureters will be cut and reconnected to give each twin her own complete urinary tract.

# Siamese Twins Undergo Surgery Here

## By DAVID M. CLEARY

Of The Bulletin Staff

Clara and Alta Rodriguez, 13-month-old Siamese twins who came here from their native Dominican Republic ten days ago, are undergoing separation surgery today. The aim is to make each girl an individual, independent of the sister to whom she has been joined since birth.

Dr. C. Everett Koop, surgeon-in-chief at Children's Hospital of Philadelphia, made the first incision at 8 A.M. today, and his 23-member surgical team "hopes" to finish the highly complex operation by about 4.30 this afternoon.

Then will begin an agonizing wait of three weeks or so, to see whether the girls will heal. Each will have a large area of open wound where she was previously joined to her sister, and the for-

mation of skin over those wounds was said by Dr. Koop yesterday to be "the biggest question I see."

As the doctor spoke yesterday, Clara and Alta were bright-eyed and smiling. Their anesthesia was begun gradually last night with sedative drugs, and more potent anesthetics were given this morning, two hours before surgery began.

Without today's operation, neither of the pretty little girls could ever expect to sit or stand normally, nor to talk. Their legs have been so intertwined since birth that they get in the way of each other.

Unlike girls who underwent a similar but more complex and unsuccessful separation operation at St. Christopher's Hospital for Children here in 1966, the Rodriguez girls were in no danger of death if the operation were not performed. They

### Continued transport WATE

steadily since birth, and have no heart problem.

But unless they're separated, each girls legs will shrivel from disuse; they can develop into normal women only if each has an opportunity to learn to walk, run and play at the usual stage of childhood for those activities.

## No Charges

The twins, their mother farita, and an aunt were flown here by a suburban Philadelphia family that learned of the girls' plight through a relative in Puerto Rico. Neither Children's Hospital nor any of the doctors is charging for their services.

Separation of "conjoined" twins (a term doctors prefer to "Siamese") is difficult when both babies share certain organs, as the Rodriguez girls do. The operation must be done in clearly defined phases, each dependent upon success of previous ones.

Ever since their birth, the Rodriguez twins — reported last weekend to be ninemonths-old, because of a mistaken translation from Spanish — have been joined facing each other by a bridge of tissue, seven inches wide, where it begins at the lower ends of their breastbones, and widening as it continues downward.

Below their waists, the girls have essentially a single hip structure. Removal of the tissue bridge will leave each girl with an abdomen having virtually no skin, open to infection unless heroic measures are taken to shield them from germs until skin forms

They will be put in separate, sterile rooms after surgery. Since the very act of breathing can interfere with skin formation, it may also be necessary to immobilize their chest and abdomen muscles. Then an oxygen and air mixture can be supplied directly into their lungs, Dr. Koop said.

# Pelvic Bones

The surgeon's concern over how the girls will heal during the next few weeks is a reflection of his confidence that

today's complex surgery, inwiting major operations within the abdomen and pelvis, will be successful.

Pelvic bones of the twins have been fused together since birth, and when separated each girl will have an incomplete pelvis, shaped like a "C rather than a complete ring.

If the girls were newborn, it would be possible to bend their pliable pelvic bones into a ring again, said Dr. Koop, but at their present state of growth it will probably be necessary to fracture each pelvis in two places, form rings that are wired together, and await bone fusion.

Inside the abdomen and pelvis shared by the two girls are other major malformations, in that:

- Each girl has her own stomach and about 90 percent of her small intestine. Then the two intestines join for the final 12 inches or so, going into a common large intestine (colon) and rectum.

  1. Their livers are also
- Their livers are also bridged together, mostly perved by separate blood vessels, but one large aftery carries blood to both.
- Each girl has a kidney connected (by a ureter) to the bladder of her sister.

### Several Teams

Following an elaborate operation plan drawn up over the past several days, several surgical teams are being formed — and reformed — at various stages of today's procedure.

Only the anesthesia team headed by Dr. John J. Downes is retaining the same duties all day: maintaining the desired level of anesthesia and monitoring the heartbeats, breathing and other vital functions of the two little girls

At least three teams of surgeons were envisioned before the operation began Dr. Koop is responsible for the separation itself: he and his assistants are also performing the incisions and anastomoses (re-connections) of blood vessels and digestive tracts.

Dr. John W. Duckett Jr. heads a team of urologic surgeons. It is their job to recon-

nect ureters so each girl's kidneys will drain into her own bladder.

### Work on Livers

At an early stage of the separation, before extending the basic incision down into the pelvic area, Dr. Koop is dividing the livers and hooking up a separate blood supply for each. It's necessary to get the circulatory system of each girl established first, he explains, so each of the other organs will have adequate blood supply when it is subjected to surgery.

At a vital stage of the separation, the plan calls for Dr. Koop's team to be working on the digestive tract of one girl while Dr. Duckett's team is working on ureters of the

other. Then the two teams are to switch patients, going on to perform assigned tasks on the other girl.

Once separation is accomplished, which can't occur until each has her own digestive and urinary tracts, separate from those of her sister, Clara will go on one operating table and Alta on another.

At that point the plan calls for Dr. Koop to head a team working on closure of wounds for one girl. Dr. Louise Schnaufer, who until that point had been a principal assistant to Dr. Koop, then takes charge of wound closure on the other.

### Only One Rectum

If everything has been worked out by this evening

according to plan, each girl will be a whole person, except that they have only one rectum between them. That single vital organ must be given to one twin or the other.

Dr. Koop said the vestigial colon and the rectum have been more a part of Clara than of Alta; the plan this morning was to cut the colon so each gire ould have half of it—giving each about one-sith as much colon as is normal — and to leave the lower half and the existing rectum with Clara, connecting her small intestine to it.

Alta was scheduled to get the upper half of the colon, which was to be brought up to an aperture made through the surface of her abdomen, in the fairly common surgical procedure of forming a colostomy.

As the operation began this morning, enough matched blood was on hand to allow two complete exchanges of all

the blood in each of the two small bodies.

"But unless some unforeseen complication arises," we don't expect that we'll need to transfuse much blood," said Dr. Koop.